

L Number	Hits	Search Text	DB	Time stamp
1	3664	genetic near3 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:36
2	15428	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:01
3	255	(crossover or (cross near over)) near3 operator	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:01
4	282	mutation near3 operator	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:01
5	92	(genetic near3 algorithm) and (xml or (extensible near markup near language))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:01
6	3	((crossover or (cross near over)) near3 operator) and ((genetic near3 algorithm) and (xml or (extensible near markup near language)))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:05
7	89	((genetic near3 algorithm) and (xml or (extensible near markup near language))) not (((crossover or (cross near over)) near3 operator) and ((genetic near3 algorithm) and (xml or (extensible near markup near language))))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:05
8	421	genetic near3 search near3 algorithm	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:16
9	9	(xml or (extensible near markup near language)) and (genetic near3 search near3 algorithm)	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:16
10	6	((xml or (extensible near markup near language)) and (genetic near3 search near3 algorithm)) not (((crossover or (cross near over)) near3 operator) and ((genetic near3 algorithm) and (xml or (extensible near markup near language))))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:16
11	3380	genetic near3 program\$4	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:31
12	38	(xml or (extensible near markup near language)) and (genetic near3 program\$4)	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:31
14	0	((crossover or (cross near over)) near3 operator) and (((xml or (extensible near markup near language)) and (genetic near3 program\$4)) not (((crossover or (cross near over)) near3 operator) and ((genetic near3 algorithm) and (xml or (extensible near markup near language)))))	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	2004/06/22 17:31

13	37	((xml or (extensible near markup near language)) and (genetic near3 program\$4)) not (((crossover or (cross near over)) near3 operator) and ((genetic near3 algorithm) and (xml or (extensible near markup near language)))) genetic near3 (algorithm or program\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:31
15	6598		USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:37
16	101	(xml or (extensible near markup near language)) and (genetic near3 (algorithm or program\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:37
17	3	((crossover or (cross near over)) near3 operator) and ((xml or (extensible near markup near language)) and (genetic near3 (algorithm or program\$5)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:37
-	1841	genetic near3 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:01
-	3167	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:01
-	185	(crossover or (cross near over)) near3 operator	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:01
-	179	mutation near3 operator	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/22 17:01
-	736	tree near3 operator	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:15
-	19	(genetic near3 algorithm) and (xml or (extensible near markup near language))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 11:44
-	16	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:14
-	175	(genetic near2 search) near2 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/10 15:19
-	2	(xml or (extensible near markup near language)) and ((genetic near2 search) near2 algorithm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:08
-	1841	genetic near3 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 14:11

-	18274	search and internet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:13
-	3167	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 14:11
-	191	(genetic near3 algorithm) and (search and internet)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 14:21
-	15	(xml or (extensible near markup near language)) and ((genetic near3 algorithm) and (search and internet))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 14:12
-	2	("5930780").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/07 14:20
-	134	(706/13).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/06/10 15:23
-	191	(genetic near3 algorithm) and (search and internet)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:08
-	11	((706/13).CCLS.) and ((genetic near3 algorithm) and (search and internet))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:09
-	3089	genetic near3 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:57
-	11277	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:07
-	11277	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:07
-	252	mutation near3 operator	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:07
-	898	tree near3 operator	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:07
-	77	(genetic near3 algorithm) and (xml or (extensible near markup near language))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:58

-	69	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:57
-	6	(xml or (extensible near markup near language)) and ((genetic near2 search) near2 algorithm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:08
-	189	(706/13).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:08
-	481	(genetic near3 algorithm) and (search and internet)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:08
-	18	((706/13).CCLS.) and ((genetic near3 algorithm) and (search and internet))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:09
-	77	(genetic near3 algorithm) and (xml or (extensible near markup near language))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:51
-	69	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:51
-	270	(genetic near2 search) near2 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:57
-	124	((genetic near2 search) near2 algorithm) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 09:57
-	5	(xml or (extensible near markup near language)) and (((genetic near2 search) near2 algorithm) and (interface or GUI))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 10:01
-	6	(xml or (extensible near markup near language)) and ((genetic near2 search) near2 algorithm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 10:01
-	1	((xml or (extensible near markup near language)) and ((genetic near2 search) near2 algorithm)) not ((xml or (extensible near markup near language)) and (((genetic near2 search) near2 algorithm) and (interface or GUI)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 10:01
-	5006	genetic near2 (algorithm or program\$6)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 14:36
-	11277	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 14:37

-	79	(genetic near2 (algorithm or program\$6)) and (xml or (extensible near markup near language))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/17 15:36
-	3327	genetic near3 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:32
-	12875	xml or (extensible near markup near language)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:13
-	43375	search and internet	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:21
-	75	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:14
-	62	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (search and internet) and (interface or GUI)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:14
-	936	tree near3 operator\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:15
-	1	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (search and internet) and (interface or GUI) and (tree near3 operator\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:18
-	2	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (search and internet) and (interface or GUI) and dtd	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:16
-	28	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (search and internet) and (interface or GUI) and tree	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:18
-	3255	genetic near2 algorithm	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:57
-	84	(genetic near3 algorithm) and (xml or (extensible near markup near language))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:21
-	67	((genetic near3 algorithm) and (xml or (extensible near markup near language))) and (search and internet)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:22
-	288	((genetic near2 search) near2 algorithm)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/02/08 17:46



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1 Optimal indexing using near-minimal space

C. Heeren, H. V. Jagadish, L. Pitt

June 2003 **Proceedings of the twenty-second ACM SIGMOD-SIGACT-SIGART symposium on Principles of database systems**

Full text available: [pdf\(208.43 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We consider the index selection problem. Given either a fixed query workload or an unknown probability distribution on possible future queries, and a bound B on how much space is available to build indices, we seek to build a collection of indices for which the average query response time is minimized. We give strong negative and positive performance bounds. Let m be the number of queries in the workload. We show how to obtain with high probability a collection of indices using space ...

2 Diagnosis, parsimony, and genetic algorithms

Walter D. Potter, B. E. Tonn, M. R. Hilliard, G. E. Liepins, S. L. Purucker, R. T. Goeltz

June 1990 **Proceedings of the third international conference on Industrial and engineering applications of artificial intelligence and expert systems - Volume 1**

Full text available: [pdf\(1.02 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The Communication Alarm Processor Expert System (CAP), developed at Oak Ridge National Laboratory for the Bonneville Power Administration, is a near real-time system that aids microwave communication system operators with interpreting the cause of large communication system problems [Purucker89]. Problems in the communications network are indicated by the real-time arrival of alarms at the central control site. CAP receives and processes these alarms, then presents the operator with a sorte ...

3 Going wireless, enabling an adaptive and extensible environment

Theo G. Kanter

February 2003 **Mobile Networks and Applications**, Volume 8 Issue 1

Full text available: [pdf\(483.21 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper discusses limitations in existing and projected solutions for delivering applications to mobile users (e.g., in 3G) in an increasingly diverse heterogeneous wireless infrastructure in combination with the on-going deregulation of mobile communication and with an increasing number of more narrowly defined roles of parties participating in the delivery of applications to mobile users. Furthermore, for future service growth, users need to be the center of communication via applications t ...

Keywords: agents, context, scalability, service, wireless

- 4 [A fast and stable hybrid genetic algorithm for the ratio-cut partitioning problem on hypergraphs](#)

Thang Nguyen Bui, Byung Ro Moon

June 1994 **Proceedings of the 31st annual conference on Design automation**

Full text available:  pdf(218.09 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

- 5 [Scalable algorithms for mining large databases](#)

Rajeev Rastogi, Kyuseok Shim

August 1999 **Tutorial notes of the fifth ACM SIGKDD international conference on Knowledge discovery and data mining**

Full text available:  pdf(4.11 MB) Additional Information: [full citation](#), [references](#), [index terms](#)

- 6 [Keynote address: Visualization challenges for a new cyberpharmaceutical computing paradigm](#)

Russell J. Turner, Kabir Chaturvedi, Nathan J. Edwards, Daniel Fasulo, Aaron L. Halpern, Daniel H. Huson, Oliver Kohlbacher, Jason R. Miller, Knut Reinert, Karin A. Remington, Russell Schwartz, Brian Walenz, Shibu Yooseph, Sorin Istrail

October 2001 **Proceedings of the IEEE 2001 symposium on parallel and large-data visualization and graphics**

Full text available:  pdf(3.07 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In recent years, an explosion in data has been profoundly changing the field of biology and creating the need for new areas of expertise, particularly in the handling of data. One vital area that has so far received insufficient attention is how to communicate the large quantities of diverse and complex information that is being generated. Celera has encountered a number of visualization problems in the course of developing tools for bioinformatics research, applying them to our data generation ...

- 7 [Back matter \(abstracts and calendar\)](#)

ACM SIGSOFT Software Engineering Notes staff

March 2004 **ACM SIGSOFT Software Engineering Notes**, Volume 29 Issue 2

Full text available:  pdf(2.18 MB) Additional Information: [full citation](#)

- 8 [Extending performance approaches to new application domains: An optimization framework for web farm configuration](#)

David Bartholomew Stewart, Efstatios Papaefstathiou, Jonathan Hardwick

July 2002 **Proceedings of the third international workshop on Software and performance**

Full text available:  pdf(220.16 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

A common problem that sales consultants face in the field is the selection of an appropriate hardware and software configuration for web farms. Over-provisioning means that the tender will be expensive while under-provisioning will lead to a configuration that does not meet the customer criteria. Indy is a performance modeling environment which allows developers to create custom modeling applications. We have constructed an Indy-based application for defining web farm workloads and topologies. T ...

Keywords: design, experimentation, indy, infrastructures, measurement, modeling, optimization, performance, simulation

- 9 [Oracle's technology for bioinformatics and future directions](#)

Bruce Blackwell, Siva Ravada

January 2003

Proceedings of the First Asia-Pacific bioinformatics conference on Bioinformatics 2003 - Volume 19

Full text available: [pdf\(74.48 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The Oracle relational database management system, with object-oriented extensions and numerous application-driven enhancements, plays a critical role worldwide in managing the exploding volumes of bioinformatics data. There are many features of the Oracle product which support the bioinformatics community directly already and there are several features that could be exploited more thoroughly by users, service vendors, and Oracle itself to extend that level of support. This paper will present an ...

Keywords: bioinformatics, database, extensibility, oracle

10 The knowledge grid

Mario Cannataro, Domenico Talia

January 2003 **Communications of the ACM**, Volume 46 Issue 1

Full text available: [pdf\(109.40 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)
[html\(26.74 KB\)](#)

Designing, building, and implementing an architecture for distributed knowledge discovery.

11 Papers: ESW4: enhanced scheme for WWW computing in wireless communication environments

Stathes Hadjiefthymiades, Lazaros Merakos

October 1999 **ACM SIGCOMM Computer Communication Review**, Volume 29 Issue 5

Full text available: [pdf\(1.18 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Mobile computing is considered of major importance to the computing industry for the forthcoming years due to the progress in the wireless communications domain. In this paper, we present a proxy-based architecture, called ESW4, which manages to accelerate Web browsing in wireless CPNs. Proxy caches, maintained in base stations, are constantly relocated to accompany the roaming user. We discuss a cache management scheme involving the relocation of full caches to the most candidate cells but also ...

12 Interconnect design and optimization: Topology optimization for application-specific networks-on-chip

Tapani Ahonen, David A. Sigüenza-Tortosa, Hong Bin, Jari Nurmi

February 2004 **Proceedings of the 2004 international workshop on System level interconnect prediction**

Full text available: [pdf\(624.12 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Compared to the well understood macro networks, networks-on-chip introduce novel design challenges. The characteristics of the system data flows and the knowledge of the required wire lengths can be exploited to optimize for speed and power consumption. A component library for flexible construction of interconnection architectures is being developed at the Tampere University of Technology to enable the creation of application development platforms. The overall design flow of these development pl ...

Keywords: application-specific network, network-on-chip, platform design, topology optimization

13 Artificial intelligence approaches to software engineering: Using genetic algorithms and coupling measures to devise optimal integration test orders

Lionel C. Briand, Jie Feng, Yvan Labiche

July 2002 **Proceedings of the 14th international conference on Software engineering and knowledge engineering**

Full text available: [pdf\(94.62 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

We present here an improved strategy to devise optimal integration test orders in object-oriented systems. Our goal is to minimize the complexity of stubbing during integration testing as this has been shown to be a major source of expenditure. Our strategy to do so is based on the combined use of inter-class coupling measurement and genetic algorithms. The former is used to assess the complexity of stubs and the latter is used to minimize complex cost functions based on coupling measurement. Us ...

Keywords: genetic algorithms, integration order, integration testing, object-oriented software engineering

14 Visualization: PathSim visualizer: an Information-Rich Virtual Environment framework for systems biology 

Nicholas F. Polys, Doug A. Bowman, Chris North, Reinhard Laubenbacher, Karen Duca
April 2004 **Proceedings of the ninth international conference on 3D Web technology**

Full text available:  pdf(423.88 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Increasingly, biology researchers and medical practitioners are using computational tools to model and analyze dynamic systems across scales from the macro to the cellular to the biochemical level. We are using Information-Rich Virtual Environments (IRVEs) to display the results of biological simulations, and to allow users to interact with those simulations. While simulation architectures, algorithms, and processing power have enjoyed continuous optimization to date, the user interfaces to thes ...

Keywords: bioinformatics, information visualization, virtual environments

15 Information delivery systems: an exploration of Web pull and push technologies 

Julie E. Kendall, Kenneth E. Kendall
April 1999 **Communications of the AIS**

Full text available:  pdf(658.33 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

16 Scholarly journals as web services: automated scholarship, memes and cyberactive articles 

Bruce J. Neubauer
April 2003 **The Journal of Computing in Small Colleges**, Volume 18 Issue 4

Full text available:  pdf(41.91 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Today's scholarly articles are passive entities. Using tags, object-oriented programming techniques, and Web services programming it may be possible to make future articles active participants in scholarship. A possible transition to "cyberactive articles" will involve a substantial change in how we perceive the work of scholarship and the role of academic journals. This articles suggests that future scholarship may become "literary engineering" supported by appropriate software tools.

17 All things UML: Nice class diagrams admit good design? 

Holger Eichelberger
June 2003 **Proceedings of the 2003 ACM symposium on Software visualization**

Full text available:  pdf(413.61 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Analysis and design of programs by using tools has emerged to a standard technique in object-oriented software engineering. Many of these tools claim to implement methods according to the UML standard and some of the tools provide automatic layout of the diagrams drawn by the user or generated automatically from source code. In this paper we propose a set of aesthetic criteria for UML class diagrams and discuss the relation between these criteria, HCI and design aspects of object-oriented softwa ...

Keywords: HCI, UML class diagrams, aesthetics, metrics, software engineering

18 [Designing telecommunications networks using genetic algorithms and probabilistic minimum spanning trees](#)

Faris N. Abuali, Dale A. Schoenefeld, Roger L. Wainwright

April 1994 **Proceedings of the 1994 ACM symposium on Applied computing**

Full text available:  [pdf\(567.60 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



19 [DARWIN: CMOS opamp synthesis by means of a genetic algorithm](#)

Wim Kruiskamp, Domine Leenaerts

January 1995 **Proceedings of the 32nd ACM/IEEE conference on Design automation**

Full text available:  [pdf\(197.88 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



20 [Finding investigator tours in telecommunication networks using genetic algorithms](#)

Cory J. Hoelting, Dale I. Schoenefeld, Roger L. Wainwright

February 1996 **Proceedings of the 1996 ACM symposium on Applied Computing**

Full text available:  [pdf\(582.41 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



Keywords: algorithm complexity, fault detection, genetic algorithms, graph theory, telecommunication networks

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21 Solving combinatorial optimization problems using parallel simulated annealing and parallel genetic algorithms

Pooja P. Matalik, Leslie R. Knight, Joe L. Blanton, Roger L. Wainwright

March 1992 **Proceedings of the 1992 ACM/SIGAPP symposium on Applied computing: technological challenges of the 1990's**

Full text available: pdf(862.26 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

22 Contributed articles on online, interactive, and anytime data mining: MobiMine: monitoring the stock market from a PDA

Hillol Kargupta, Byung-Hoon Park, Sweta Pittie, Lei Liu, Deepali Kushraj, Kakali Sarkar
January 2002 **ACM SIGKDD Explorations Newsletter**, Volume 3 Issue 2

Full text available: pdf(1.16 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

This paper describes an experimental mobile data mining system that allows intelligent monitoring of time-critical financial data from a hand-held PDA. It presents the overall system architecture and the philosophy behind the design. It explores one particular aspect of the system--automated construction of personalized focus area that calls for user's attention. This module works using data mining techniques. The paper describes the data mining component of the system that employs a novel Four ...

23 A combination of genetic algorithm and simulated evolution techniques for clustering

Jay Bhuyan

February 1995 **Proceedings of the 1995 ACM 23rd annual conference on Computer science**

Full text available: pdf(851.14 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

24 A new iterated local search algorithm using genetic crossover for the traveling salesman problem

Kengo Katayama, Hiroyuki Narihisa

February 1999 **Proceedings of the 1999 ACM symposium on Applied computing**

Full text available: pdf(691.44 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: distance preserving crossover, double-bridge, escape technique, genetic iterated local search, traveling salesman problem

25 A hybrid genetic algorithm for the point to multipoint routing problem with single split paths

Pablo Galiasso, Roger L. Wainwright

March 2001 **Proceedings of the 2001 ACM symposium on Applied computing**

Full text available:  pdf(84.61 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: Steiner trees, genetic algorithm, point to multipoint routing, telecommunications network

26 GENOCOP: a genetic algorithm for numerical optimization problems with linear constraints

Z. Michalewicz, C. Z. Janikow

December 1996 **Communications of the ACM**

Full text available:  pdf(250.33 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

27 Optimization in a distributed processing environment using genetic algorithms with multivariate crossover

Aaron H. Konstam, Stephen J. Hartley, William L. Carr

April 1992 **Proceedings of the 1992 ACM annual conference on Communications**

Full text available:  pdf(752.27 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We set out to demonstrate the effectiveness of distributed genetic algorithms using multivariate crossover in optimizing a function of a sizable number of independent variables. Our results show that this algorithm has unique potential in optimizing such functions. The multivariate crossover meta-strategy, however, did not result in a singularly better performance of the algorithm than did simpler crossover strategies.

28 Reducing disruption of superior building blocks in genetic algorithms

Arthur L. Corcoran, Roger L. Wainwright

February 1996 **Proceedings of the 1996 ACM symposium on Applied Computing**

Full text available:  pdf(870.38 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: building blocks, genetic algorithms, masking, reduction, relative bonding strength

29 Cellular genetic algorithms as function optimizers: locality effects

V. Scott Gordon, Keith Mathias, Darrell Whitley

April 1994 **Proceedings of the 1994 ACM symposium on Applied computing**

Full text available:  pdf(598.54 KB) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: cellular genetic algorithms, locality, massively parallel genetic algorithms, optimization, traveling salesman problem

30 Very greedy crossover in a genetic algorithm for the traveling salesman problem

Byrant A. Julstrom

February 1995 **Proceedings of the 1995 ACM symposium on Applied computing**

Full text available: [pdf\(615.32 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: crossover operators, genetic algorithms, traveling salesman problem

31 A genetic algorithm for packing in three dimensions

Arthur L. Corcoran, Roger L. Wainwright

March 1992 **Proceedings of the 1992 ACM/SIGAPP symposium on Applied computing: technological challenges of the 1990's**

Full text available: [pdf\(1.08 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

32 Assurance in life/nation critical endeavors: Biometrics or ... biohazards?

John Michael Williams

September 2002 **Proceedings of the 2002 workshop on New security paradigms**

Full text available: [pdf\(1.17 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

IPSE DIXIT Biometrics as an array of deployable technologies presumes an elaborate infrastructure, including underlying science that justifies its claims of detection, classification, identification and authentication of individual human identities; particularly of those who are runaways, illegal immigrants, fugitives, criminals, terrorists, and so on. This will now too often be literally a matter of life and death, both for the public and the individuals identified. The "New Security Paradigm" em ...

33 Session 16: load balancing and domain decomposition: Genetic algorithms for graph partitioning and incremental graph partitioning

Harpal Maini, Kishan Mehrotra, Chilukuri Mohan, Sanjay Ranka

November 1994 **Proceedings of the 1994 ACM/IEEE conference on Supercomputing**

Full text available: [pdf\(622.32 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Partitioning graphs into equally large groups of nodes, minimizing the number of edges between different groups, is an extremely important problem in parallel computing. This paper presents genetic algorithms for suboptimal graph partitioning, with new crossover operators (KNUX, DKNUX) that lead to orders of magnitude improvement over traditional genetic operators in solution quality and speed. Our method can improve on good solutions previously obtained by using other algorithms or graph theory ...

34 On genetic algorithms

Eric B. Baum, Dan Boneh, Charles Garrett

July 1995 **Proceedings of the eighth annual conference on Computational learning theory**

Full text available: [pdf\(1.13 MB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

35 A hybrid algorithm for the point to multipoint routing problem

Heather L. Christensen, Roger L. Wainwright, Dale A. Schoenefeld

April 1997 **Proceedings of the 1997 ACM symposium on Applied computing**

Full text available: [pdf\(513.59 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: Steiner trees, genetic algorithms, point to multipoint routing, telecommunications networks

36 A parallel island model genetic algorithm for the multiprocessor scheduling problem

Arthur L. Corcoran, Roger L. Wainwright

April 1994 **Proceedings of the 1994 ACM symposium on Applied computing**

Full text available:  pdf(558.01 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: genetic algorithms, multiprocessor scheduling, parallel island model, parallel processing

37 A weight-coded genetic algorithm for the multiple container packing problem

Günther R. Raidl

February 1999 **Proceedings of the 1999 ACM symposium on Applied computing**

Full text available:  pdf(709.68 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: combinatorial optimization, hybrid genetic algorithm, multiple container packing problem, weighted coding

38 Spatial Hypertext: Semantics happen: knowledge building in spatial hypertext

Frank Shipman, J. Michael Moore, Preetam Maloor, Haowei Hsieh, Raghu Akkapeddi

June 2002 **Proceedings of the thirteenth ACM conference on Hypertext and hypermedia**

Full text available:  pdf(392.66 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Hypertext represents ideas through chunks of text or other media interconnected by relations, typically navigational links. The similarity to knowledge representations such as frames and semantic nets has led to much effort in using hypertext systems for knowledge representation and extending hypertext systems to make them able to express more. This work has met with limited success due to difficulties including the tacit and situated nature of much knowledge. Instead of viewing knowledge expres ...

Keywords: incremental formalization, mixed-Initiative dialogs, spatial hypertext, spatial parser, suggestion-based interfaces, visual language

39 Mobile computing and applications (MCA): A call admission control scheme using genetic algorithms

Dilek Karabudak, Chih-Cheng Hung, Benny Bing

March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Full text available:  pdf(281.73 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Next Generation Wireless Systems (NGWS) will provide a variety of services to mobile users including high speed data, real-time applications and real-time multimedia support with a certain quality of service (QoS) level. An efficient handoff management is one of the key issues in order to support global roaming of the mobile users among different network architectures of the NGWS. In this paper, a new call admission control scheme, Genetic-based call admission control (GAC), is proposed for NGWS. ...

Keywords: Call Admission Control (CAC), Genetic Algorithms, Markov Decision Model, Next Generation Wireless Systems (NGWS), handoff management

40 Using genetic algorithms to inductively reason with cases in the legal domain

Anandeep S. Pannu

May 1995 **Proceedings of the fifth international conference on Artificial intelligence and law**

Full text available:  [pdf\(972 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

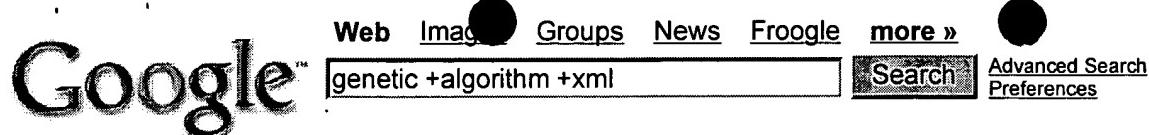
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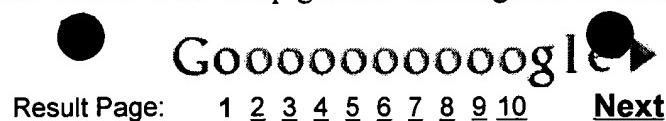
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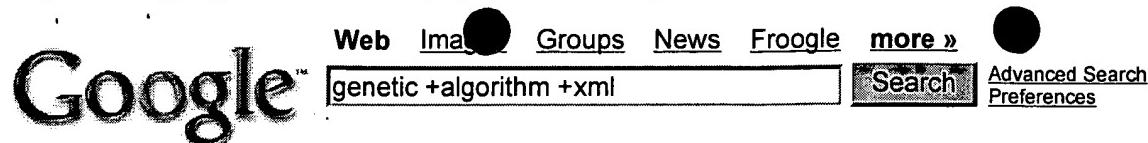
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 algorithms employing stochastic processes (**genetic algorithms** (GA) and simulated annealing (SA)are also
 techniques such as Extensible Markup Language (**XML**) and Simple Object Access Protocol (SOAP) to
 in Java with uniform, standard data transport tools (**XML** (Extensible Markup Language) and SOAP (Simple
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 network scaling, self-organizing maps, etc. **Genetic algorithms** are based on principles of evolution and
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 is generally divided in four major flavors: **genetic algorithms** (GA)genetic programming (GP)evolution
 Currently, only classical **genetic algorithms** and genetic programming frameworks have been
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www.gel.ulaval.ca/~cgagne/pubs/hpcs03.pdf

[Open BEAGLE: A New C++ Evolutionary Computation Framework - Gagne, Parizeau \(2002\) \(Correct\)](#)

the architecture. Currently, only classical **genetic algorithms** and genetic programming frameworks have been implemented. Object allocators, standard containers, and XML I/O streams. The generic EC framework implements object allocators, standard containers, and XML I/O streams. The generic EC framework implements www.gel.ulaval.ca/~cgagne/pubs/beagle-gecco02.pdf

Automatic Page Layout Using Genetic Algorithms for Electronic.. - Geigel, Loui (Correct)

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a P2P system. In particular, we make use of **genetic algorithms** [5] in tuning the ant algorithms used by and properties to be measured, are specified using XML. Unlike other toolkits for multi-agent simulation www.elet.polimi.it/Users/DEI/Sections/CompEng/GianPietro.Picco/ntw02-p2p/papers/18.pdf

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network based on the competitive learning or **genetic algorithms**. A SAX library available on Linux can An XML-based Query Language Used in Structural Search

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5. Effective information retrieval using **genetic algorithms** based matching function adaptation"with Jsp, Java Servelet, Perl, Oracle, Javascript, Dhtml, XML, Sgml References Professor Michael D. Gordon webuser.bus.umich.edu/wfan/cv/cv.pdf

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Technical Report UBLCs-99-09

April 1999

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Action Refinement

Roberto Gorrieri ¹

Arend Rensink ²

Technical Report UBLCS-99-09

April 1999

Abstract

This paper is a thorough survey on the state of the art of action refinement in process algebra, with a historical perspective. (To appear as Chapter XVI of the Handbook of Process Algebra, Elsevier Science, 1999.)

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1 Introduction

1.1 What is action refinement about?

A widely accepted approach to specify the behaviour of concurrent systems relies on state/transition abstract machines, such as labelled transition systems: an activity, supposed to be atomic at a certain abstraction level, can be represented by a transition, the label of which is the name of the activity itself. Once these *atomic actions* are defined, one technique to control the complexity of a concurrent system specification is by means of (horizontal) modularity: a complex system can be described as composed of smaller subsystems. Indeed, this is the main achievement of process algebras: the specification is given as a term whose subterms denotes subcomponents; the specification, as well as the analysis on it, can be done component-wise, focussing on few details at a time.

However, from a software engineering viewpoint, the resulting theory may in many cases still be unsuitable, as the abstraction level is fixed once and for all by the given set of atomic actions. In the development of software components, it may be required to compare systems that belong to conceptually different abstraction levels (where the change of the level is usually accompanied by a change in the sets of actions they perform) in order to verify if they realise essentially the same functionality. Once the sets of actions at the different abstraction levels are defined, a technique (orthogonal to the previous one) for controlling the complexity of concurrent system specifications is by means of *vertical* modularity: a complex system can be first described succinctly as a simple, abstract specification and then refined stepwise to the actual, complex implementation; the specification, as well as the analysis on it, can be done level by level, focussing each time on the relevant details introduced by passing from the previous level to the current one. This well-known approach is sometimes referred to as *hierarchical specification methodology*. It has been successfully developed for sequential systems, yielding, for instance, a technique known as *top-down systems design*, where a high-level “instruction” is macro-expanded to a lower level “module” until the implementation level is reached (see, e.g., [129]).

In the context of process algebra, this refinement strategy amounts to introducing a mechanism for transforming high-level primitives/actions into lower level processes (i.e., processes built with lower level actions). There are several ways to do this, according to some choices that can be taken. This is discussed in the following subsections.

1.2 Refinement operator vs. hierarchy of descriptions

In traditional programming languages, there is an operator that supports a hierarchical specification methodology: the declaration (and call) of a procedure, given by (some syntactical variant of) “let $a = u$ in t ”. This specifies that the abstract name a is declared to equal its body u in the scope t . So, whenever a is encountered during the execution of t , u is executed in its place. Similarly, one way to support vertical modularity in process algebra is by introducing an explicit operator, called action refinement and written $t[a \rightarrow u]$, which plays a role similar to that of procedure call: it is nothing but a declaration, introducing the name a for its body u in the scope t . The discussion about the possible meanings of the refinement operator is postponed to Sections 1.3 and 1.4; here we simply recall that the main problem faced by the advocates of this approach, the so-called *congruence problem*, is to find an observational equivalence which respects the refinement operator. A non-exhaustive list of papers following this approach in process algebra is [6, 7, 14, 10, 24, 30, 31, 39, 41, 59, 78, 97, 107, 112] and in semantic models [17, 35, 43, 52, 53, 82, 116, 119, 120].

Most of this chapter is devoted to a study of the operator for action refinement within process algebra. However, also another approach to support vertical modularity is discussed in this chapter: a hierarchy of descriptions, equipped with a suitable implementation relation establishing an ordering among them. Typically, a concurrent system, described at several levels of detail, can be seen as a collection of different albeit related systems. Each of these systems may be described in a particular (process algebraic) language. Therefore, in order to relate the various systems, it is necessary that we are able to correctly relate the different languages. The implementation of a language into another language may be often seen as the definition of the primitives

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.... we extend our language with an action refinement operator $P [a ; Q]$ which performs the semantic refinement of all executed by P to Q [12,11,14]. In particular with the new technique we have that if both P and Q are finite state processes the $[a ; Q]$ is finite state. Through...

.... $r 2 (a)$ for all $a \# A$ (for instance, in the example above, $r 1 : a \# a \# ; b, r 2 : a \# a \# ; c$ and $r = r 1 r 2$) In [24] we have developed a notion of lax vertical bisimulation , satisfying the above rules; however, this in turn fails to satisfy R 23 . Rather, to...

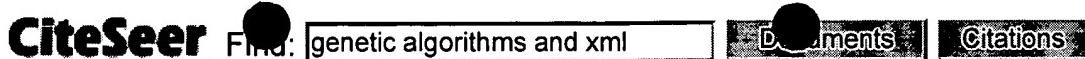
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Jants

Jants is hosted at [SourceForge](http://www.sourceforge.net/projects/jants)



Jants

Jants 1.3

Jants 1.3 is the latest release of Jants. Source code and binaries are available at <http://www.sourceforge.net/projects/jants>.

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Jants

Jants is a set of Java libraries for the artificial evolution of neural network control systems. Jants contains a genetic algorithm library, a neural network library, an environment for evaluating agents controlled by a neural network (gridspace), and a library for defining and running evolutionary searches. The evolutionary search generates genetic specifications for individuals that effectively solve the problem defined in the environment. The network, genetic, and environment libraries are independent, so that different combinations of genetic encoding, network architecture, and environments can be run in the evolutionary search algorithm. The state of the system objects is continuously saved in XML or text format, so that statistics can be gathered as the system runs.

Version 1.1 introduced use of Java Message Service (JMS) to distribute the work of evaluating individuals. This allows parallel evaluation, greatly speeding the evolutionary search compared to version 1.0. Version 1.2 allows environments to be run locally or remotely.

The gridspace environment is a version of the robot box-pushing problem proposed by Teller in "The Evolution of Mental Models." in "Advances in Genetic Programming", MIT press, 1994, as described by Karthik Balakrishnan and Vasant Honavar in "Evolving Neuro-Controllers and Sensors for Artificial Agents" in "Advances in the Evolutionary Synthesis of Intelligent Agents" MIT press, 2001.

Jants offers a flexible neural network architecture that can represent recurrent networks and other architectures. The representation of networks and search state in XML makes it easier to read and analyze the results of an evolutionary run.

Acknowledgements

We thank the authors of the Java projects listed below for their contributions to Open Source software. Jants uses code from these projects, and would have been much less functional without them.

Project	Version	Purpose
Commons CLI	1.0	Command line parsing
Commons Discovery	0.2	Discovery of interface implementations
Commons Logging	1.0.3	Message logging API
Concurrent	1.3.2	Multi-threaded data structures
JGraph	2.1.1	Graph viewer
JUnit	3.8.1	Unit testing
JXM	0.2	XML marshalling

Log4J	1.2.4	Message logging
OpenJMS	0.7.4	Java Message Service implementation
Xerces	2.0.2	XML parsing

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Java XML Mapping (JXM)



JXM

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JXM 0.3

This documentation is for the 0.3 release of JXM. Source code and binaries are available at <http://www.sourceforge.net/projects/jxm>. JXM is a project of [Life Code, Inc.](#)

Java XML Mapping (JXM)

Java XML Mapping (JXM) is a tool for writing Java objects to XML and reading them back again. JXM provides a default mapping so that Java objects that follow Java Bean naming conventions can be written to XML by calling a single method. The default mapping can be customized by creating and registering mapping classes with the JXM framework.

JXM differs from other XML binding tools by not requiring objects to include or inherit from JXM code. No generated code is included in the objects, and they don't need to implement JXM interfaces. Customization is done by writing Java code rather than XML descriptors. JXM differs from other XML binding tools by supporting the mapping of object relationships to XML elements. Capturing object relationship information makes reading from XML easier, and is inspired by the XMI specification for representing UML associations in XML. The design goal of JXM is to make the source Java objects and the generated XML as decoupled as possible.

Another design goal of JXM is simplicity, which accepts some loss of function. JXM does not support XML namespaces, and there is no tool to generate code from XML Schema. JXM will support XML namespaces in a future release.

Acknowledgements

We thank the authors of the Java projects listed below for their contributions to Open Source software. JXM depends on code from these projects, and would have been much less functional without them.

JXM uses ideas and some code from ExoLab's Castor library. Where Castor code is included, the package name is changed, but it retains its original copyright notice.

Project	Version	Purpose
Castor	0.9.4.3	Java XML binding
Commons CLI	1.0	Command line parsing
Commons Discovery	0.2	Discovery of interface implementations
Commons Logging	1.0.3	Message logging API
JUnit	3.8.1	Unit testing
Log4J	1.2.4	Message logging
Xerces	2.0.2	XML parsing

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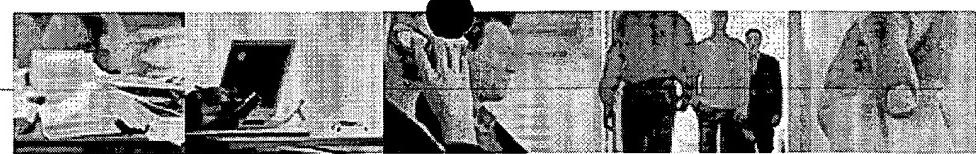
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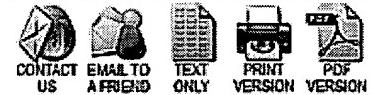
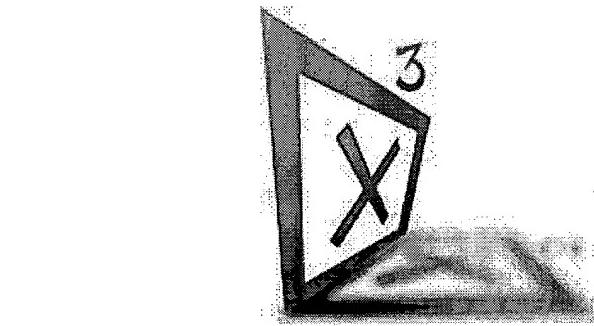
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**X³ XML Search Engine****Introduction**

X³ is an XML search engine that provides true, context-sensitive searching of XML documents. X³ is the premier XML Search indexer and engine available. It indexes XML according to the individual tags (contexts) within each document, and provides an intuitive interface that allows users to easily select what contexts they wish to search, without having to know the structure of the document nor complex XPath syntax. X³ technology can also highlight search terms and link directly to the point in the document in which the "hit" is located. This allows common users to find the information they need, when they need it, within just a few clicks.

This product is called X³ (X-Cubed) because it runs in 3 types of environments: Web-based, stand-alone and wireless. This makes it the perfect XML Search solution for the growing number of organizations making the move to XML.

What is XML?

eXtensible Markup Language (XML) is a way of adding *intelligence to your documents*. It lets you identify elements using meaningful, descriptive tags and it lets you add information ("meta data") about each element (or tag). It is very much a part of the future of the Web, and inherently part of the future for all electronic information. In fact, Microsoft Bill Gates has "bet the company" on XML, as detailed in the following statement:

"So we've bet our company on XML the same way we bet a decade ago on graphics interface and there's been great progress around

this. We're rebuilding all of our software -- Windows, SQL, Office, Project -- around XML as the key data type for this easy, easy exchange. And so a lot of these applications will really come into play over the next several years and you'll think of that as a new approach and a much more efficient approach."

At XML 2003, Adam Bosworth of BEA said the following:

"The relational database is designed to serve up rows and columns. But our model of the world is documents. It's 'Tell me everything I want to know about this person or this clinical trial.' And those things are not flat, they're complex. Now we have the way to get not only the hospital records and prescriptions but also the doctor's write-ups. The doctors and bankers will get that, just as the highway patrolmen already do. XML documents, flowing through XML plumbing, can now deliver very real and tangible benefits."

In short, XML can make your normally "flat" documents into a *database* of information - making your documents smarter. XML is different than HTML in that it allows you to use your own tags to define parts of a document. You can do this because XML is a descriptive, not a procedural, language. That is, XML describes what the data is rather than performing a formatting action. For example, take a look at a page of a newspaper. You'll see different font sizes, different sections, and columns. If you were to create a Web page for that newspaper--using the same formatting and styles--you would use tags such as `<H1>` and `` to define the size and color of a large headline, or `<i>` to italicize a word such as a byline, in order to distinguish it from the rest of the text. But just try to write tags that actually explain that you've got a Headline and that the words "John Smith" make up a byline. HTML won't know what you're talking about if you create tags such as `<Headline>` or `<byline>` or `<advertisement>`.

XML documents can be moved to any format on any platform -- without the elements losing their meaning. That means you can publish the same information to a web browser, a PDA, print, voice (with voiceXML), or other new technologies currently available or soon to be available.

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XML allows developers to tag content using customized tags. Each developer can create a unique tag set, using tags that describe the data that is contained within them. For instance, take the following set of tags:

```
<?xml version="1.0"?>
<doc>
<topic id="top5551229-027">
<title>Installation and Testing</title>
<para>Use the following troubleshooting and installation
procedures to correct problems with the DeLorean Time
Machine.
</para>
```

```
<tspara id="ts524080123-28">
<title>Flux Capacitor Fault Isolation</title>
<warning id="w524081410-333">
<wpara>High levels of radiation may be present. Pay special
attention to leakage levels. If hair starts to fall out,
leave area immediately and follow procedures in Section <xref
xrefid="sec624081410-94"/>, "How To Treat Radiation
Poisoning".
</wpara>
</warning>

<procedure>
<step id="st524081410-92">
Turn Flux Capacitor ready switch to "Test Mode".
</step>

<step id="st524081410-93">
Using a Neon Spectrometer, check for any radioactive leakage
around the plutonium fuel cell.
</step>

<step id="st524081410-94">
Set the plutonium fuel cell's "Max Output" to 12.2 Giga
watts.
</step>
...
</procedure>
</tspara>
</topic>
</doc>
```

As the above example shows, the elements (tags) in this example "describe" the data that is contained within them. The `<tspara>` tags contain "Troubleshooting Information", the `<warning>` tags contain important or dangerous information and can be described as "Warnings" or "Important Information". The X³ Indexer allows you to take full control over your documents by allowing you to create descriptive noun names for your tags to search from, making it easy and intuitive for your end-users to choose which context(s) they want to search. Other search engines that boast "context-sensitive" searching require that the user must know:

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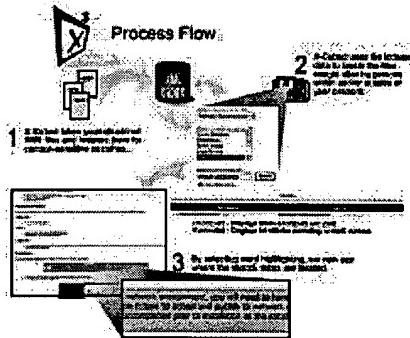
Search: /doc/topic/tspara/step "Flux Capacitor"

As the above example shows, the *end-user* must know the structure of the

XML document to conduct a context search. In most cases, how can the end-user know what the structure is? DocSoft's superior X³ technology makes it easy to choose contexts, and perform full Boolean searching on all of your XML documents.

Process Flow

The following details shows the process flow for the X³ Search Engine.



X3 Process Flow (Click for larger view)
(Click to Enlarge)

Is There a Demo Available for X³?

Yes, the searching features on this site use X³. There is also a downloadable trial version of the software. Please click [here](#) to search this site using X³, or click [here](#) to download the trial version. Ensure you meet the minimum system requirements as defined below before downloading the trial version.

System Requirements for Downloadable Demo Version

- Working knowledge of XML and associated XSL
- MS-SQL Server® 97 or 2000
- Internet Information Server® (IIS) 4 or 5
- Minimum 512M RAM (the more the better)

X³ Features

X3 Features Matrix

X³ Indexer X³ uses a patent-pending system based on a single high performance index that indexes XML data according to tags within a document, rather than to an entire document. This provides for true-context-sensitive searching of XML documents.

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X³ For Oracle An Oracle®-compatible version of X³ is now available!



Index and search multiple file formats such as text, MS Word, PDF,

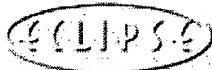
X³ v2.2! as well as context-sensitive searching with XML.

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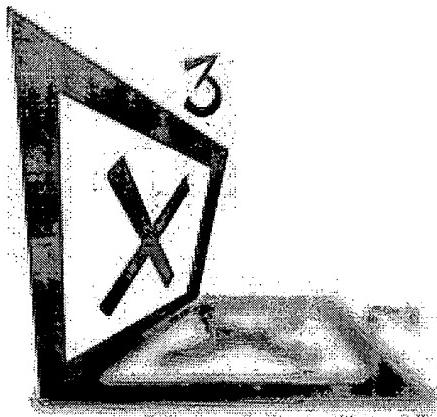
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<tspara id="ts524080123-28"><title>Flux Capacitor Fault Isolation</title>
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```



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</topic>  
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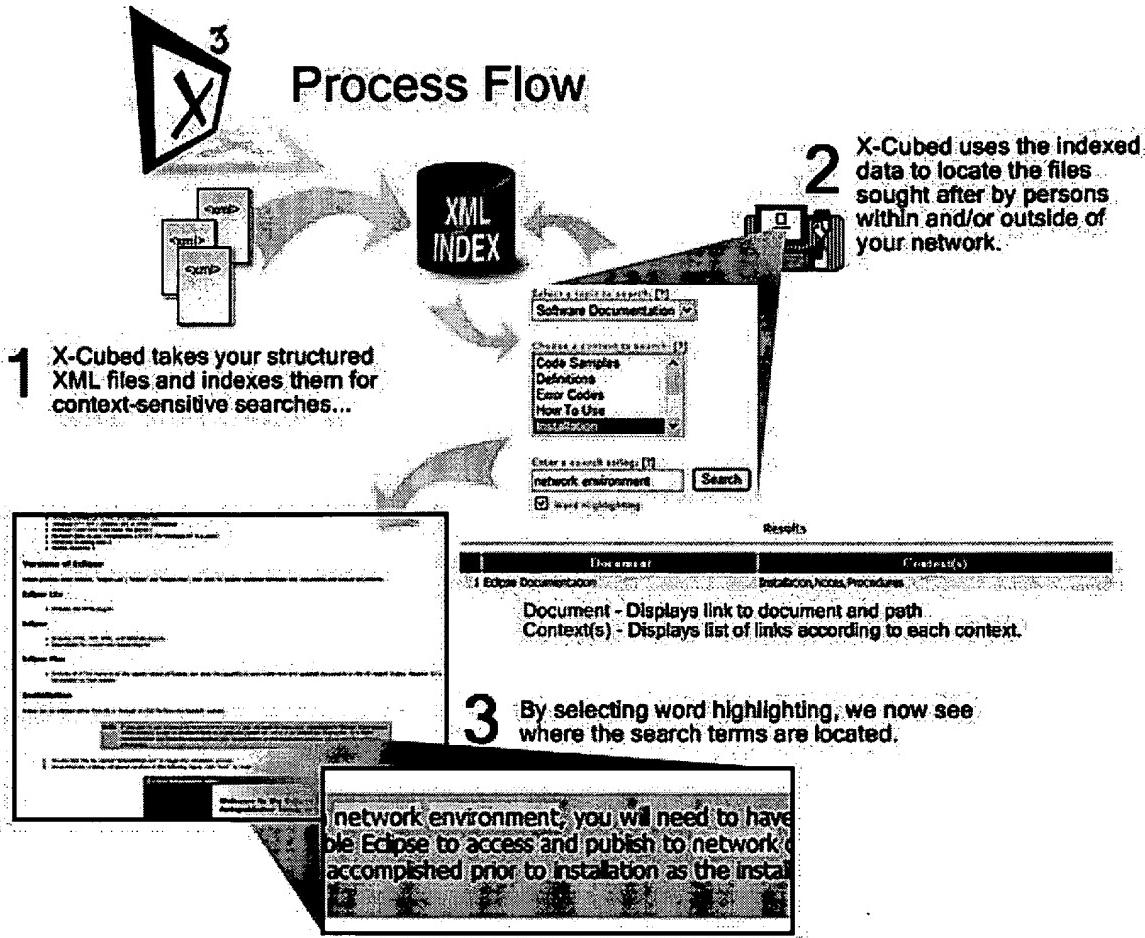
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Index and search multiple file formats such as text, MS Word, PDF, as well as context-sensitive searching with XML.

X₃ v2.2!

For more information about X₃, please visit our FAQs.



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... References. Michalewicz 1992 Michalewicz, Z. 1992, **Genetic Algorithms + Data Structures** = Evolution Programs (Berlin, Springer-Verlag). Press et al. 1992 ...

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Patrick Siarry , Alain Pétrowski , Mourad Bessaou, A multipopulation genetic algorithm aimed at multimodal optimization, Advances in Engineering Software, v.33 n.4, p.207-213, 30 April 2002

Oğuzhan Hasançebi , Fuat Erbatur, Layout optimisation of trusses using simulated annealing, Advances in Engineering Software, v.33 n.7-10, p.681-696, 29 November 2002

Christopher Herbig, Genetic algorithms vs. greedy algorithms in the optimization of course scheduling, The Journal of Computing in Small Colleges, v.17 n.5, p.90-94, April 2002

Bertrand Mesot , Eduardo Sanchez , Carlos-Andres Peña , Andres Perez-Uribe, SOS++: finding smart behaviors using learning and evolution, Proceedings of the eighth international conference on Artificial life, p.264-273, December 09-13, 2002

Thomas Bäck , Claus Hillermeier , Jörg Ziegenhirt, Routing optimization in corporate networks by evolutionary algorithms, Advances in evolutionary computing: theory and applications, Springer-Verlag New York, Inc., New York, NY, 2003

YuanXiang Li , XiuFen Zou , LiShan Kang , Zbigniew Michalewicz, A new dynamical evolutionary algorithm based on statistical mechanics, Journal of Computer Science and Technology, v.18 n.3, p.361-368, May 2003

S. D. Likothanassis , E. F. Georgopoulos, Self-organised evolutionary neural networks: algorithms and applications, Highly parallel computations: algorithms and applications, WIT Press, 001

Dionysios Politis , Panagiotis Linardis , Michael Dimopoulos, Musical composition based on genetic algorithms and fuzzy transformations of traditional Greek music patterns, Progress in computer research, Nova Science Publishers, Inc., Commack, NY, 2001

Charles Howell , Gary Vecellio, Experiences with error handling in critical systems, Advances in exception handling techniques, Springer-Verlag New York, Inc., New York, NY, 2001

Roman Śmierzchalski, Evolutionary algorithm in problem of avoiding collision at sea, Artificial intelligence and security in computing systems, Kluwer Academic Publishers, Norwell, MA, 2003

Luiz S. Ochi , Lucia M. A. Drummond , Rosa M. V. Figueiredo, Design and implementation of a parallel genetic algorithm for the travelling purchaser problem, Proceedings of the 1997 ACM symposium on Applied computing, p.257-262, April 1997, San Jose, California, United States

Hendrik Richter , Lothar März, Toward a standard process: the use of UML for designing simulation models, Proceedings of the 32nd conference on Winter simulation, December 10-13, 2000, Orlando, Florida

Melvin Neville , Anaika Sibley, Developing a generic genetic algorithm, Proceedings of the 2002 annual ACM SIGAda international conference on Ada: The engineering of correct and reliable software for real-time & distributed systems using Ada and related technologies, p.45-52, December 08-12, 2002, Houston, Texas, USA

Takamasa Sawada , Atsuko Mutoh , Shohei Kato , Hidenori Itoh, A model of biological differentiation in adaptogenesis to the environment, Proceedings of the eighth international conference on Artificial life, p.93-96, December 09-13, 2002

D. Scott Crane , Roger L. Wainwright , Dale A. Schoenefeld, Scheduling of multi-product fungible liquid pipelines using genetic algorithms, Proceedings of the 1999 ACM symposium on Applied computing, p.280-285, February 28-March 02, 1999, San Antonio, Texas, United States

Moshe Sipper , Daniel Mange , Eduardo Sanchez, Quo Vadis evolvable hardware?, Communications of the ACM, v.42 n.4, p.50-56, April 1999

Tadeusz Burczyński , Marc Bonnet , Piotr Fedeliński , Marek Nowakowski, Sensitivity analysis and identification of material defects in dynamical systems, Systems Analysis Modelling Simulation, v.42 n.4, p.559-574, April 2002

Dae Gyu Kim, Riemann mapping based constraint handling for evolutionary search, Proceedings of the 1998 ACM symposium on Applied Computing, p.379-385, February 27-March 01, 1998, Atlanta, Georgia, United States

Cory Quammen, Evolutionary learning in mobile robot navigation, Crossroads, v.8 n.2, p.10-14, Winter 2001

Diego F. Nehab , Marco Aurélio C. Pacheco, Schemata Theory for the real coding and arithmetical operators, Proceedings of the 2004 ACM symposium on Applied computing, March 14-17, 2004, Nicosia, Cyprus

M. P. Saka, Optimum design of pitched roof steel frames with haunched rafters by genetic algorithm, Proceeding of the eighth international conference on The application of artificial intelligence to civil and structural engineering computing, p.117-118, September 19-21, 2001, Stirling, Scotland

Luigi Iuspa , Francesco Scaramuzzino , Pietro Petrenga, Optimal design of an aircraft engine mount via bit-masking oriented genetic algorithms, Advances in Engineering Software, v.34 n.11-12, p.707-720, November 2003

Bryant A. Julstrom, Coding TSP tours as permutations via an insertion heuristic, Proceedings of the 1999 ACM symposium on Applied computing, p.297-301, February 28-March 02, 1999, San Antonio, Texas, United States

A. V. Mogilenko , D. A. Pavlyuchenko , V. Z. Manusov, Development of fuzzy regression models using genetic algorithms, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, v.11 n.4, p.429-444, August 2003

L. Iuspa , F. Scaramuzzino , P. Petrenga, Topological optimization of an aircraft engine mount via bit-

masking oriented genetic algorithms, Proceeding of the eighth international conference on The application of artificial intelligence to civil and structural engineering computing, p.239-240, September 19-21, 2001, Stirling, Scotland

Masatoshi Sakawa , Kosuke Kato, An interactive fuzzy satisficing method for general multiobjective 0-1 programming problems through genetic algorithms with double strings based on a reference solution, Fuzzy Sets and Systems, v.125 n.3, p.289-300, February 1, 2002

Catrinel-Octavia Turcanu , Teddy Craciunescu, A genetic approach to limited data tomographic reconstruction of time-resolved energy spectrum of short-pulsed neutron sources, Pattern Recognition Letters, v.23 n.8, p.967-976, June 2002

Martin Grajcar, Conditional scheduling for embedded systems using genetic list scheduling, Proceedings of the 13th international symposium on System synthesis, September 20-22, 2000, Madrid, Spain

V. Loia , A. Staiano , R. Tagliaferri , S. Sessa, An evolutionary hybrid approach to the design of a decision support system, Proceedings of the 2000 ACM symposium on Applied computing 2000, p.524-528, March 2000, Como, Italy

M. Kavian , R. G. McLenaghan , K. O. Geddes, Application of genetic algorithms to the algebraic simplification of tensor polynomials, Proceedings of the 1997 international symposium on Symbolic and algebraic computation, p.93-100, July 21-23, 1997, Kihei, Maui, Hawaii, United States

R. Alcalá , J. Casillas , O. Cordón , F. Herrera , I. Zwir, Hybridizing Hierarchical and Weighted Linguistic Rules, Proceedings of the 2002 ACM symposium on Applied computing, March 11-14, 2002, Madrid, Spain

Patrick R. McMullen , Mark Clark , David Albritton , John Bell, A correlation and heuristic approach for obtaining production sequences requiring a minimum of tool replacements, Computers and Operations Research, v.30 n.3, p.443-462, March 2003

Yong Xu , Shen-Chu Xu , Bo-Xi Wu, Strictly nonblocking grooming of dynamic traffic in unidirectional SONET/WDM rings using genetic algorithms, Computer Networks: The International Journal of Computer and Telecommunications Networking, v.41 n.2, p.227-245, 5 February 2003

Sanjoy K. Sen , Amiya Bhattacharya , Sajal K. Das, A selective location update strategy for PCS users, Wireless Networks, v.5 n.5, p.313-326, Oct. 1999

Guido Maione , David Naso, A soft computing approach for task contracting in multi-agent manufacturing control, Computers in Industry, v.52 n.3, p.199-219, December 2003

Y. Wu , E. Appleton, The optimisation of block layout and aisle structure by a genetic algorithm, Computers and Industrial Engineering, v.41 n.4, p.371-387, February 2002

A. Kanarachos , D. Koulouchris , H. Vrazopoulos, Evolutionary algorithms with deterministic mutation operators used for the optimization of the trajectory of a four-bar mechanism, Mathematics and Computers in Simulation, v.63 n.6, p.483-492, 24 November 2003

M. Lepš , J. Zeman , Z. Bittnar, Hybrid optimization approach to design of reinforced concrete frames, Proceedings of the third international conference on Engineering computational technology, p.177-178, September 04-06, 2002, Stirling, Scotland

José C. Riquelme , Jesús S. Aguilar-Ruiz , Carmelo Del Valle, Supervised learning by means of accuracy-aware evolutionary algorithms, Information Sciences: an International Journal, v.156 n.3-4, p.173-188, 15 November 2003

Tao-Yuan Huang , Yung-Yaw Chen, Diversity-based selection pooling scheme in evolution strategies, Proceedings of the 2001 ACM symposium on Applied computing, p.351-355, March 2001, Las Vegas,

Nevada, United States

John Kemeny , Randy Post, Estimating three-dimensional rock discontinuity orientation from digital images of fracture traces, Computers & Geosciences, v.29 n.1, p.65-77, February 2003

J. L. Álvarez , J. Mata , J. C. Riquelme, Mining interesting regions using an evolutionary algorithm, Proceedings of the 2002 ACM symposium on Applied computing, March 11-14, 2002, Madrid, Spain

Byrant A. Julstrom, Very greedy crossover in a genetic algorithm for the traveling salesman problem, Proceedings of the 1995 ACM symposium on Applied computing, p.324-328, February 26-28, 1995, Nashville, Tennessee, United States

S. Mondal , M. Maiti, Multi-item fuzzy EOQ models using genetic algorithm, Computers and Industrial Engineering, v.44 n.1, p.105-117, January 2003

M. Pióro , Á. Szentesi , J. Harmatos , A. Jüttner , P. Gajowniczek , S. Kozdrowski, On open shortest path first related network optimisation problems, Performance Evaluation, v.48 n.1-4, p.201-223, May 2002

Martin Grajcar, Genetic list scheduling algorithm for scheduling and allocation on a loosely coupled heterogeneous multiprocessor system, Proceedings of the 36th ACM/IEEE conference on Design automation conference, p.280-285, June 21-25, 1999, New Orleans, Louisiana, United States

Rafał Latkowski, On decomposition for incomplete data, Fundamenta Informaticae, v.54 n.1, p.1-16, January 2003

Cristian Munteanu , Agostinho Rosa, Evolutionary image enhancement with user behaviour modeling, Proceedings of the 2001 ACM symposium on Applied computing, p.316-320, March 2001, Las Vegas, Nevada, United States

Andrea Edwards, Using a parallel genetic algorithm to design vibratory bowl feeders, Proceedings of the 42nd annual Southeast regional conference, April 02-03, 2004, Huntsville, Alabama

Doo-Hyun Choi, New fitness-based migration operator for evolutionary programming, Neural, Parallel & Scientific Computations, v.9 n.2, p.231-238, June 2001

Roberto Spina , Luigi M. Galantucci , Michele Dassisti, A hybrid approach to the single line scheduling problem with multiple products and sequence-dependent time, Computers and Industrial Engineering, v.45 n.4, p.573-583, December 2003

E. J. Solteiro Pires , J. A. Tenreiro Machado , P. B. de Moura Oliveira, Fractional order dynamics in a GA planner, Signal Processing, v.83 n.11, p.2377-2386, November 2003

Víctor M. Rivas , J. J. Merelo , I. Rojas , G. Romero , P. A. Castillo , J. Carpio, Evolving two-dimensional fuzzy systems, Fuzzy Sets and Systems, v.138 n.2, p.381-398, September 01, 2003

I. G. Damousis , K. J. Satsios , D. P. Labridis , P. S. Dokopoulos, Combined fuzzy logic and genetic algorithm techniques-application to an electromagnetic field problem, Fuzzy Sets and Systems, v.129 n.3, p.371-386, August 2002

Cristian Munteanu , Agostinho Rosa, Evolutionary image enhancement with user behavior modeling, ACM SIGAPP Applied Computing Review, v.9 n.1, Spring 2001

Jorge Casillas , Oscar Cordón , Francisco Herrera, Different approaches to induce cooperation in fuzzy linguistic models under the COR methodology, Technologies for constructing intelligent systems: Tasks, Physica-Verlag GmbH, Heidelberg, Germany, 2002

T. M. Chan , S. Kwong , K. F. Man , K. S. Tang, Hard handoff minimization using genetic algorithms,

Signal Processing, v.82 n.8, p.1047-1058, August 2002

Phillip N. Azariadis , Andreas C. Nearchou , Nikos A. Aspragathos, An evolutionary algorithm for generating planar developments of arbitrarily curved surfaces, Computers in Industry, v.47 n.3, p.357-368, March 2002

Michał Karzynski , Álvaro Mateos , Javier Herrero , Joaquín Dopazo, Using a Genetic Algorithm and a Perceptron for Feature Selection and Supervised Class Learning in DNA Microarray Data, Artificial Intelligence Review, v.20 n.1-2, p.39-51, October 2003

Marc M. Lankhorst , Marten D. van der Laan , Wolfgang A. Halang, Wavelet-based signal approximation with genetic algorithms, Systems Analysis Modelling Simulation, v.43 n.11, p.1503-1528, November 2003

P. P. Angelov , R. A. Buswell, Automatic generation of fuzzy rule-based models from data by genetic algorithms, Information Sciences—Informatics and Computer Science: An International Journal, v.150 n.1-2, p.17-31, March 2003

Jens Gottlieb , Torben Kruse, Selection in evolutionary algorithms for the traveling salesman problem, Proceedings of the 2000 ACM symposium on Applied computing, p.415-421, March 2000, Como, Italy

Travis S. Metcalfe , Paul Charbonneau, Stellar structure modeling using a parallel genetic algorithm for objective global optimization, Journal of Computational Physics, v.185 n.1, p.176-193, 10 February 2003

Cheol W. Lee , Yung C. Shin, Construction of fuzzy systems using least-squares method and genetic algorithm, Fuzzy Sets and Systems, v.137 n.3, p.297-323, August 1, 2003

Günther R. Raidl, A weight-coded genetic algorithm for the multiple container packing problem, Proceedings of the 1999 ACM symposium on Applied computing, p.291-296, February 28-March 02, 1999, San Antonio, Texas, United States

Mousbah Barake , Pierre Chardaire , Geoff P. McKeown, The probe metaheuristic and its application to the multiconstraint knapsack problem, Metaheuristics: computer decision-making, Kluwer Academic Publishers, Norwell, MA, 2004

Boris Aronov , Hervé Brönnimann , Allen Y. Chang , Yi-Jen Chiang, Cost-driven octree construction schemes: an experimental study, Proceedings of the nineteenth conference on Computational geometry, June 08-10, 2003, San Diego, California, USA

Randall S. Sexton , Robert E. Dorsey , Naheel A. Sikander, Simultaneous optimization of neural network function and architecture algorithm, Decision Support Systems, v.36 n.3, p.283-296, January 2004

Stefan Droste , Dirk Wiesmann, On the design of problem-specific evolutionary algorithms, Advances in evolutionary computing: theory and applications, Springer-Verlag New York, Inc., New York, NY, 2003

Nidhi Kapoor , Mark Russell , Ivan Stojmenovic , Albert Y. Zomaya, A genetic algorithm for finding the pagenumber of interconnection networks, Journal of Parallel and Distributed Computing, v.62 n.2, p.267-283, February 2002

Xavier Llorà , David E. Goldberg, Bounding the effect of noise in multiobjective learning classifier systems, Evolutionary Computation, v.11 n.3, p.279-298, Fall 2003

Sajal K. Das , Sanjoy K. Sen, A new location update strategy for cellular networks and its implementation using a genetic algorithm, Proceedings of the third annual ACM/IEEE international conference on Mobile computing and networking, p.185-194, September 26-30, 1997, Budapest, Hungary

Plamen P. Angelov, An evolutionary approach to fuzzy rule-based model synthesis using indices for rules, Fuzzy Sets and Systems, v.137 n.3, p.325-338, August 1, 2003

Guy Helmer , Johnny S. K. Wong , Vasant G. Honavar , Les Miller, Automated discovery of concise predictive rules for intrusion detection, Journal of Systems and Software, v.60 n.3, p.165-175, 15 February 2002

Jun He , Xin Yao, Towards an analytic framework for analysing the computation time of evolutionary algorithms, Artificial Intelligence, v.145 n.1-2, p.59-97, April 2003

Hong Liu , Shang-Teng Huang, Evolutionary semi-supervised fuzzy clustering, Pattern Recognition Letters, v.24 n.16, p.3105-3113, December 2003

Enrique Alba , Antonio J. Nebro , José M. Troya, Heterogeneous computing and parallel genetic algorithms, Journal of Parallel and Distributed Computing, v.62 n.9, p.1362-1385, September 2002

Helio J. C. Barbosa , Afonso C. C. Lemonge, A new adaptive penalty scheme for genetic algorithms, Information Sciences: an International Journal, v.156 n.3-4, p.215-251, 15 November 2003

P. Demestichas , A. Oikonomou , G. Vivier , M. Theologou, Management of wireless home networking technologies in the context of composite radio environments, ACM SIGMOBILE Mobile Computing and Communications Review, v.7 n.2, April 2003

Jiranut Loetamonphong , Shu-Cherng Fang , Robert E. Young, Multi-objective optimization problems with fuzzy relation equation constraints, Fuzzy Sets and Systems, v.127 n.2, p.141-164, April 16 2002

Jean-Yves Potvin , Patrick Soriano , Maxime Vallée, Generating trading rules on the stock markets with genetic programming, Computers and Operations Research, v.31 n.7, p.1033-1047, June 2004

Zong-Ben Xu , Kwong-Sak Leung , Yong Liang , Yee Leung, Efficiency speed-up strategies for evolutionary computation: fundamentals and fast-GAs, Applied Mathematics and Computation, v.142 n.2-3, p.341-388, 10 October 2003

Jian-Ping Li , Marton E. Balazs , Geoffrey T. Parks , P. John Clarkson, A species conserving genetic algorithm for multimodal function optimization, Evolutionary Computation, v.10 n.3, p.207-234, Fall 2002

F. Herrera , E. López , M. A. Rodríguez, A linguistic decision model for promotion mix management solved with genetic algorithms, Fuzzy Sets and Systems, v.131 n.1, p.47-61, October 1, 2002

Nigel Tracey , John Clark , John McDermid , Keith Mander, A search-based automated test-data generation framework for safety-critical systems, Systems engineering for business process change: new directions, Springer-Verlag New York, Inc., New York, NY, 2002

Filippo Neri, Relational concept learning by cooperative evolution, Journal of Experimental Algorithmics (JEA), 7, p.12, 2002

Francisco Aparisi , J. Carlos García-Díaz, Optimization of univariate and multivariate exponentially weighted moving-average control charts using genetic algorithms, Computers and Operations Research, v.31 n.9, p.1437-1454, 1 August 2004

Yeo Keun Kim , Kitae Park , Jesuk Ko, A symbiotic evolutionary algorithm for the integration of process planning and job shop scheduling, Computers and Operations Research, v.30 n.8, p.1151-1171, July 2003

Cristina Lopez-Pujalte , Vicente P. Guerrero Bote , Félix de Moya Anegón, A test of genetic algorithms in relevance feedback, Information Processing and Management: an International Journal, v.38 n.6,

p.793-805, November 200

Cristina López-Pujalte , Vicente P. Guerrero-Bote , Félix de Moya-Anegón, Order-based fitness functions for genetic algorithms applied to relevance feedback, Journal of the American Society for Information Science and Technology, v.54 n.2, p.152-160, January 2003

Alejandro Quintero , Samuel Pierre, Sequential and multi-population memetic algorithms for assigning cells to switches in mobile networks, Computer Networks: The International Journal of Computer and Telecommunications Networking, v.43 n.3, p.247-261, 22 October 2003

Cristina López-Pujalte , Vicente P. Guerrero-Bote , Félix de Moya-Anegón, Genetic algorithms in relevance feedback: a second test and new contributions, Information Processing and Management: an International Journal, v.39 n.5, p.669-687, September 2003

Alex Alves Freitas, Evolutionary computation, Handbook of data mining and knowledge discovery, Oxford University Press, Inc., New York, NY, 2002

Regina Célia Coelho , Vito Di Gesù , Giosuè Lo Bosco , Júlia Sawaki Tanaka , Cesare Valenti, Shape-based features for cat ganglion retinal cells classification, Real-Time Imaging, v.8 n.3, p.213-226, June 2002

Harilaos G. Sandalidis , Peter Stavroulakis, Heuristics for solving fixed-channel assignment problems, Handbook of wireless networks and mobile computing, John Wiley & Sons, Inc., New York, NY, 2002

Alex A. Freitas, A survey of evolutionary algorithms for data mining and knowledge discovery, Advances in evolutionary computing: theory and applications, Springer-Verlag New York, Inc., New York, NY, 2003

Kim W. C. Ku , M. W. Mak , W. C. Siu, Approaches to combining local and evolutionary search for training neural networks: a review and some new results, Advances in evolutionary computing: theory and applications, Springer-Verlag New York, Inc., New York, NY, 2003

Alex Alves Freitas, Evolutionary computation, Handbook of data mining and knowledge discovery, Oxford University Press, Inc., New York, NY, 2002

Ulrich Dorndorf , Erwin Pesch , Toàn Phan Huy, Machine learning by schedule decomposition: prospects for an integration of AI and OR techniques for job shop scheduling, Advances in evolutionary computing: theory and applications, Springer-Verlag New York, Inc., New York, NY, 2003

H. Pierreval , C. Caux , J. L. Paris , F. Viguier, Evolutionary approaches to the design and organization of manufacturing systems, Computers and Industrial Engineering, v.44 n.3, p.339-364, March 2003

Peter J. Bentley , David W. Corne, Introduction to creative evolutionary systems, Creative evolutionary systems, Morgan Kaufmann Publishers Inc., San Francisco, CA, 2001

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[2] O.Gogan, SC.Buraga - "The Use of Neural Networks ...

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(2001) (Correct) EquiX-A Search and **Query Language for XML** - Cohen, Kanza ...

citeseer.nj.nec.com/WorldWideWeb/date-titles.html - 45k - Supplemental Result - [Cached](#) - [Similar pages](#)

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Web Technologies

Present and Future of XML

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Sabin Corneliu Buraga



- Ph.D. Student: **Multimedia Object Manipulation Techniques on Internet** coordinated by Prof.D.Todoroi (since 1998)
- M.Sc. Thesis: **Markup Languages** (1998)
- ◆ B.Sc. Thesis: **LEDA - an extensible visual object-oriented preprocessor** (1997)
- ◆ Co-founder & co-supervisor of Web-Group (since March 2000)

Sabin Corneliu Buraga

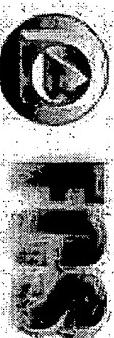


◆ Experience and points of interest:

- Annotation languages and applications (SGML, XML)
- Web technologies (SOAP, CGI, PHP, DOM, SML, robots & agents)
- Information retrieval and representation on Web (metadata - RDF, query-languages, hypertext theory)
- Graphical environments and hypermedia interfaces

What is XML

- ◆ Web Consortium's standard and future direction of research (since 1998)
- ◆ Publicly, freely available specifications at **www.w3.org**
- ◆ Subset of SGML (Standard Generalized Markup Language) - meta-language
- ◆ Simple, flexible, and suitable for Web applications
- ◆ XML adds **type and structure** to **information**
- ◆ Universal industry support



XML family



- ◆ Syntax: XML (Extensible Markup Language)
- ◆ Validation: DTD, namespaces, XML Schema
- ◆ Hyperlinking: XLink, XPointer
- ◆ Transformations and semantics: XSL (Extensible Stylesheet Language) – uses XPointer and XSLT languages
 - Rules-based, event-driven declarative programming language
- ◆ Interface: XUL (Extensible User Interface Language)

Concrete & abstract XML

Abstract Model

XML
Information
Set (InfoSet)

Concrete Syntax

XML 1.0 +
Namespaces
in XML

SAX2
DOML2

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Programming XML

- ◆ Easy to parse and manipulate
- ◆ **DOM** - Document Object Model
- ◆ **SAX** - Simple API for XML
 - Implements standard programming (language & platform independent) interfaces
 - Provides a standard set of objects
 - Defines logic structure of XML data
 - Interoperates with other XML standards
 - Advantages: dynamic XML documents on Web, easy parsing and modification



XML: Applications

- ◆ Science: MathML, SGF (Structured Graph Format), ChemML, MOVL (Molecular Dynamics Language)
- ◆ Knowledge Representation: VHG (Virtual Hyper-Glossary), XMI (XML Metadata Interchange Format), OIL (Ontology Inference Layer), RDF (Resource Description Framework)
- formal representation of Web resources ⇒ **semantic Web** (Tim Berners-Lee)
- ◆ Hypermedia: SML (Synchronized Multimedia Integration Language), SVG (Scalable Vector Graphics), WebSchematics, PGML (Precision Graphics Markup Language)



XML: Applications (2)



- ◆ Human Language Technology: VoiceXML, SpeechML, TalkML, Open e-Book, XML/EDI (Electronic Data Exchange), TEI (Text Encoding Initiative), SABLE
- ◆ Business: OTR (Open Trading Protocol), BizTalk, OFX (Open Financial Exchange), BIPS (Bank Internet Payment Systems), BRML (Business Rules Markup Language)
- ◆ Industry: PDX (Product Definition Exchange), NITF (News Industry Text Format), WML (Wireless Markup Language)

XML - Our research

- An XML-based representation of Lindenmayer systems:
L-SML (L-Systems Modeling Language)
- An XML-based query language to be used in (semi)structural search activity on Web:
WQFL (WebQuery Formulating Language)
- ...to be continued!



Conclusions

- Platform-neutral and open standard
- Adaptive solution for interoperability and intelligent description of Web information
- XML as a component technology (via SOAP - Simple Object Access Protocol)
- XML is not completely standardized
- Anyone can contribute, comment and implement XML applications



Web Technologies

Thank you for attention!

More specific information
on my home page:

<http://www.infoiasi.ro/~busaco>

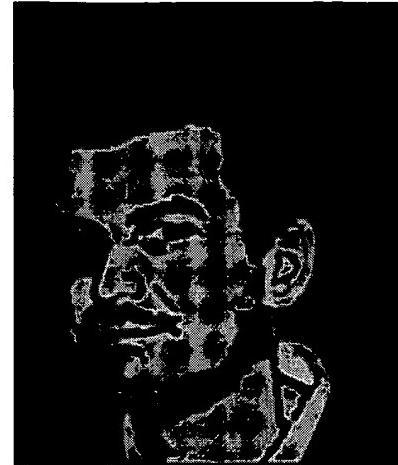
Questions?

Sabin Corneliu Buraga
<busaco@infoiasi.ro>



Curriculum Vitae

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[Jobs/Activities](#) | [Personality](#) | [Hobbies](#) | [Languages](#)



Personal details

- First names: **Sabin-Cornelius**
- Last name: **Buraga**
- Date of birth: January 07, 1974
- Place of birth: Iasi, Romania
- Gender: male
- Address (home): 179, Pacurari Street., bl. B1, apt. 21, Iasi – ROMANIA
- Address (office): 16, Berthelot Street., Iasi – ROMANIA
- E-mail:
 - **busaco@infoiasi.ro**
- Web page:
 - **<http://www.infoiasi.ro/~busaco>**
- Parents:
 - Father: *Radu-Cornelius Buraga*, technician, TermoService R.A., Iasi
 - Mother: *Sabina-Elena Buraga*, economist, secretary, Faculty of Horticulture, "Ion Ionescu de la Brad" University of Agronomy and Veterinary Medicine, Iasi
- Sister: *Andreea-Elena Buraga*
- Citizenship: Romanian
- Social status: single

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**Myself – 29 years old
(in November 2003)**

Education

- **April 2000**
Post-graduate course: *1560B Updating Support Skills from Microsoft Windows NT 4.0 to Microsoft Windows 2000* (S&T Romania)
- **November 1998**
Ph.D. Candidate – Multimedia Object Manipulation Techniques on Internet, Faculty of Computer Science, "Al.I.Cuza" University, Iasi (Supervised by Prof. Dr. Dumitru Todoroi)
- **June 1998**
M.Sc. Degree in Distributed Computing at Faculty of Computer Science, "Al.I.Cuza" University, Iasi
- **June 1997**
B.Sc. Degree in Computer Science at Faculty of Computer Science, "Al.I.Cuza" University, Iasi

- **1992-1997**

1st-5th years at Faculty of Computer Science, "Al.I.Cuza" University, Iasi

- **1988-1992**

9th-12th classes at "G. Moisil" High School of Computer Science, Iasi

Publications

- **Books**

1. "*Semantic Web*" (in Romanian), MATRIX ROM Publishing House, Bucharest, 2004 (244 pages) – to appear
2. "**Using Linux**" (in Romanian), Polirom Publishing House, Iasi, 2004 – collaboration with Dragos Acostachioae (408 pages) – ISBN 973-681-542-0
3. "**Multimedia Presentations on Web**" (in Romanian), Polirom Publishing House, Iasi, 2004 – collaboration with Mihaela Brut (256 pages) – ISBN 973-681-521-8
4. "**Web Applications**" (in Romanian), Polirom Publishing House, Iasi, 2003 (272 pages) – ISBN 973-681-456-4 (as the editor and co-author)
5. "**Web Sites Design**" (in Romanian), Polirom Publishing House, Iasi, 2002 (272 pages) – ISBN 973-681-113-1
6. "**Web Programming in bash and Perl**" (in Romanian), Polirom Publishing House, Iasi, 2002 – collaboration with Victor Tarhon-Onu and Stefan Tanasa (256 pages) – ISBN 973-683-931-1
7. "**Web Technologies**" (in Romanian), MATRIX ROM Publishing House, Bucharest, 2001 (2 volumes, 660 pages) – ISBN 973-685-280-6 — 1st Prize (Award of ANIRO Association)
8. "**Programming Workshop on Computer Networks**" (in Romanian), Polirom Publishing House, Iasi, 2001 – collaboration with Gabriel Ciobanu (240 pages) – ISBN 973-683-755-6

- **Book Chapters**

1. "*Implementation Support*" (in Romanian), in Costin Pribeanu (ed.), Introduction in Human-Computer Interaction, Matrix Rom, Bucharest, 2003
2. "*From Interface Design to Ergonomics Design and Interaction*" (in Romanian), in Costin Pribeanu (ed.), User-Interface Ergonomics, Matrix Rom, Bucharest, 2004 (to appear)

- **Refereed Papers (in the Proceedings of International/National Conferences or International/National Scientific Publications)**

1. "*Semantic Web Technologies for Virtual Environments*", accepted to ROSYCS 2004 (Romanian Symposium on Computer Science) – Web Technologies (collaboration with S.Tanasa)
2. "*Using XML Technologies for Information Integration within an E-Enterprise*", Proceedings of the 7th International Conference on Development and Application Systems, Suceava University Press, 2004 (collaboration with M.Cioca)
3. "*Query Languages for Multimedia Information*", Proceedings of the

- 7th International Conference on Development and Application Systems, Suceava University Press, 2004 (collaboration with M.Brut)
4. "The Use of XML Technologies for Exchanging Information within a Multi-Agent System", International Scientific Journal of Computing, Vol. 2, Issue 3, 2003 (collaboration with L.Alboiae and S.Alboiae)
 5. "ITW – An Architecture based on Distributed Web Components for Multimedia Resource Discovery", Scientific Annals of the "Al.I.Cuza" University of Iasi – Computer Science Section, Tome XIII, 2003, "Al.I.Cuza" University Press House, Iasi [**PDF**]
 6. "A Distributed Platform based on Web Services for Multimedia Resource Discovery", Proceedings of the 2nd International Symposium on Parallel and Distributed Computing, IEEE Computer Society Press, 2003 (collaboration with P.Gabureanu)
 7. "tuBiG - A Layered Infrastructure to Provide Support for Grid Functionalities", Proceedings of the 2nd International Symposium on Parallel and Distributed Computing, IEEE Computer Society Press, 2003 (collaboration with L.Alboiae and S.Alboiae)
 8. "Instruments and Web Technologies for Implementing Architectures and Integration Informatics Systems in Virtual Enterprise", Proceedings of the 3rd International Conference on Research And Development In Mechanical Industry – RaDMI 2003, Herceg Novi, Montenegro Adriatic, 2003 (collaboration with M.Cioca)
 9. "Open Methodologies for Developing Web-based E-Learning Systems", Proceedings of the International Conference on Manufacturing Science and Education Challenges of the European Integration, "L.Bлага" University Press, Sibiu, 2003 (collaboration with M.Cioca)
 10. "Integration Methodologies of Enterprises in "e-Europe" Utilizing Reference Architectures, Modelling Languages and Web Technologies", Proceedings of the 6th International MTeM Conference 2003, Cs.Gyenge (ed.), MTeM, Cluj, Romania, 2003 (collaboration with M.Cioca)
 11. "New Tools for Human Resource Management in e-Business: Combining UML Language, Reference Architectures and Web Programming", Proceedings of INDIN'03, Canada, 2003 (collaboration with M.Cioca)
 12. "An XML-based Serialization of Information Exchanged by Software Agents", Proceedings of the 7th World Multiconference on Systemics, Cybernetics and Informatics – SCI 2003, Orlando, USA, 2003 (collaboration with S.Alboiae and L.Alboiae)
 13. "An XML-Based Agent-Oriented E-Learning System", The Annals of "Dunarea de Jos" University of Galati – Special Issue on Computer Assisted Instruction – Electrotehnics, Electronics, Automatic Control and Informatics Section, Fascicle III, 2003
 14. "An XML/RDF-based Proposal to Exchange Information within a Multi-Agent System", Concurrent Information Processing and Computing – CIPC 2003 NATO Advanced Research Workshop – Pre-Proceedings, D.Grigoras et al. (eds.), "Al.I.Cuza" University

- Press House, Iasi (collaboration with S.Alboiae and L.Alboiae)
- 15. "*Developing Agent-Oriented E-Learning Systems*", Proceedings of The 14th International Conference on Control Systems And Computer Science – vol.II, I.Dumitrache and C.Buiu (eds.), Politehnica Press, Bucharest, 2003 [**PDF**]
 - 16. "*Using Multimedia Presentations on Web*", Proceedings of The 14th International Conference on Control Systems And Computer Science – vol.II, I.Dumitrache and C.Buiu (eds.), Politehnica Press, Bucharest, 2003 (collaboration with M.Brut) [**PDF**]
 - 17. "*An XML-based Semantic Description of Distributed File Systems*", Proceedings of The Second Edition of RoEduNet International Conference on Networking in Education and Research, Samia Press, Iasi, 2003 [**PDF**]
 - 18. "*An XML-based Approach in Designing and Building of Web User-Interfaces*", The 6th International Symposium on Economic Informatics (Digital Economy) – IE 2003 Proceedings, Inforec Press, Bucharest, 2003
 - 19. "*An XML-based Object-Oriented Infrastructure for Developing Software Agents*", Scientific Annals of the "Al.I.Cuza" University of Iasi – Computer Science Section, Tome XII, 2002, "Al.I.Cuza" University Press House, Iasi (collaboration with S.Alboiae and L.Alboiae) [**PDF**]
 - 20. "*A RDF-based Model for Expressing Spatio-Temporal Relations Between Web Sites*", Proceedings of the 3rd International Conference on Web Information Systems Engineering – WISE 2002, Singapore, IEEE Computer Society Press, 2002 (collaboration with G.Ciobanu)
 - 21. "*A Model for Accessing Resources of the Distributed File Systems*", in "Advanced Environments, Tools and Applications for Cluster Computing" Proceedings of the NATO ARW Mangalia, Romania, 1-6 September 2001, D.Grigoras et al. (eds.), Lecture Notes in Computer Science – LNCS 2326, Springer Verlag, 2002
 - 22. "*Modeling Relations Between Web Resources*", Transactions on Automatic Control and Computer Science, vol.47 (61), No.2, Politehnica Press, Timisoara, 2002 [**PDF**]
 - 23. "*Different XML-based Search Techniques on Web*", Transactions on Automatic Control and Computer Science, vol.47 (61), No.2, Politehnica Press, Timisoara, 2002 (collaboration with M.Brut) [**PDF**]
 - 24. "*A Proposal for Exchanging Scientific Documents on the Web*", The 6th World Congress of Theoretically Oriented Chemists – WATOC 2002, August 2002, Lugano, Switzerland (collaboration with T.Rusu and C.Iojoiu)
 - 25. "*VRML Representations of Lindenmayer Systems*", Proceedings of the 6th International Conference on Development and Application Systems, May 2002, Suceava (collaboration with D.Stefanescu and E.Pecheanu)
 - 26. "*A Proposal for a Web Structural Search Language Based on XML Technologies*", Scientific Annals of the "Al.I.Cuza" University of Iasi – Computer Science Section, Tome X, 2001, "Al.I.Cuza"

- University Press House, Iasi (collaboration with M.Brut) [**PS**]
- 27. "*ARTMAP Neuronal Network Use for the Investigation of Polymer Structural Properties*", in "5th Austrian Polymer Meeting" Abstracts Volume, Leoben, Austria, 12-14 September 2001 (collaboration with T.Rusu)
 - 28. "*Amphiphilic Copolymers as Water Delivery Systems*", European Polymer Journal, no.37, Elsevier Science, 2001 (collaboration with T.Rusu and S.Ioan)
 - 29. "*A RDF Proposal for Modeling Relationships Between A Teleconferencing System's Resources*", The 7th International Symposium on Automatic Control and Computer Science – SACCS 2001 CD-ROM Proceedings, October 2001, Iasi [**PDF**]
 - 30. "*Search Semi-Structured Data on Web*", The 7th International Symposium on Automatic Control and Computer Science – SACCS 2001 CD-ROM Proceedings, October 2001, Iasi (collaboration with T.Rusu) [**PDF**]
 - 31. "*Integrating Hypermedia Objects in an Intelligent Tutoring System*", The 11th International Symposium on Modeling, Simulation and System's Identification – SIMSIS 2001 Proceedings, October 2001, Galati; also, published in The Annals of "Dunarea de Jos" University of Galati – Electrotechnics, Electronics, Automatic Control and Informatics Section, Fascicle III, 2001 (collaboration with E.Pecheanu, D.Stefanescu and A.Istrate)
 - 32. "*Pedagogical Agents in Intelligent Tutoring Systems*", The 11th International Symposium on Modeling, Simulation and System's Identification – SIMSIS 2001 Proceedings, October 2001, Galati (collaboration with D.Stefanescu and E.Pecheanu)
 - 33. "*Modeling Relations Between Resources of an Internet Teleconferencing System*", The 11th International Symposium on Modeling, Simulation and System's Identification – SIMSIS 2001 Proceedings, October 2001, Galati (collaboration with D.Stefanescu and E.Pecheanu)
 - 34. "*An Extensible Framework for Building Interactive Courses on Web*", The 5th International Symposium on Economic Informatics – IE 2001 Proceedings, May 2001, Inforec Press, Bucharest [**PDF**]
 - 35. "*L'investigation de la structure des polymères par l'utilisation d'un réseau neuronal*", Scientific Bulletin of Politehnica University of Timisoara, Chemistry and Environment Engineering Section, Tome 46(60), Fascicle 1-2, Politehnica Press, Timisoara, 2001 (collaboration with T.Rusu)
 - 36. "*An XML-based Representation of Relationships Between Resources of an Internet Teleconferencing System*", in Abstracts of the International Conference "Information Technologies", V.L.Perju (ed.), 2001, Chisinau
 - 37. "*A RDF Description of Distributed File Systems*", Scientific Annals of the "Al.I.Cuza" University of Iasi – Computer Science Section, Tome IX, 2000, "Al.I.Cuza" University Press House, Iasi [**PS**]
 - 38. "*An XML-based Query Language Used in Structural Search Activity on Web*", Transactions on Automatic Control and Computer

- Science, Vol. 45 (59), No.3, Politehnica Press, Timisoara, 2000
(collaboration with T.Rusu) [[PDF](#)]
39. "The Use of Neural Networks for Structural Search on Web", in "The 10th Edition of The International Symposium on System Theory - SINTES10 Proceedings", May 2000, Craiova (collaboration with O.Gogan) [[PDF](#)]
 40. "An XML-based Representation of Lindenmayer Systems" (in Romanian), in "The First Conference on Computation Theory and Information Technology - CITTI 2000 Proceedings", May 2000, Constanta [[PDF](#)]
 41. "GAEN - An Advanced Concurrent Teleconferencing System", in "The 6th International Symposium on Automatic Control and Computer Science - SACCS'98 Proceedings" (vol.II), November 1998, Iasi [[PDF](#)]
 42. "Software Tool with Fuzzy Capabilities for Assisting Decision in Steel Selection Process", in "The 6th International Symposium on Automatic Control and Computer Science - SACCS'98 Proceedings" (vol.I), November 1998, Iasi (collaboration with M.Calin and I.Alexandru)
 43. "Application of Fuzzy Database Management in Steel Selection", in "EUROMAT'98 European Conference Proceedings", July 1998, Lisbon (collaboration with M.Calin and I.Alexandru)

- **Printed Papers (in the Proceedings of Romanian Conferences)**

1. "Adaptabilitatea informationala si operationala" (in Romanian), in "Sesiunea jubiliara de comunicari stiintifice Crestere economica, dezvoltare, progres", vol.XXX, November 2000, Cluj-Napoca (collaboration with D.Todoroi)
2. "Metode ale inteligentei artificiale utilizate in studiu polimerilor" (in Romanian), in "Al XXVI-lea Simpozion National de Chimie" (rezumate), October 2000, Calimanesti-Caciulata, Valcea (collaboration with T.Rusu)
3. "Tehnici fuzzy de reprezentare si manipulare a cunoştinţelor cu aplicaţii în cercetarea știinţifica horticola" (in Romanian), in "ASAS'98 Proceedings: Conceptii moderne in cercetarea horticola romaneasca", June 1998, Bucuresti (collaboration with M.Calin and C.Leonte)

- **Printed Papers (in Romanian Magazines)**

1. "Webolution" (in Romanian), NET Report (CD-ROM), vol.12, 04 (127), April 2003 [[HTML](#)]
2. "Dialogues about SOAP" (in Romanian), NET Report (CD-ROM), vol.12, 02 (125), February 2003 (collaboration with L.Alboiae) [[PDF](#)]
3. "CGI Scripts in bashlib" (in Romanian), NET Report (CD-ROM), vol.11, 11 (122), November 2002 (collaboration with S.Tanasa) [[PDF](#)]
4. "Regular Expressions in Perl" (in Romanian), NET Report, vol.11, 09 (120), September 2002 (collaboration with V.Tarhon-Onu) [[PDF](#)]
5. "Administration of Web Servers" (in Romanian), NET Report, vol.11, 07 (118), July 2002 (collaboration with D.Acostachioae)

- [PDF]
6. "*RPC Mechanism*" (in Romanian), NET Report, vol.11, 06 (117), June 2002 [PDF]
 7. "*CGI Scripts in bash*" (in Romanian), NET Report, vol.11, 05 (116), May 2002 (collaboration with S.Tanasa) [PDF]
 8. "*Bash as a Programming Language*" (in Romanian), NET Report, vol.11, 04 (115), April 2002 (collaboration with S.Tanasa) [PDF]
 9. "*XML in Perl*" (in Romanian), NET Report, vol.11, 03 (114), March 2002 [PDF]
 10. "*CGI Scripts in Perl*" (in Romanian), NET Report, vol.11, 02 (113), February 2002 [PDF]
 11. "*Databases and XML in Perl*" (in Romanian), NET Report, vol.11, 01 (112), January 2002 [PDF]
 12. "*CGI versus Servlets - part II*" (in Romanian), NET Report, vol.11, 01 (112), January 2002 (collaboration with S.Andrei) [PDF]
 13. "*CGI versus Servlets - part I*" (in Romanian), NET Report, vol.10, 12 (111), December 2001 (collaboration with S.Andrei) [PDF]
 14. "*Dynamic Manipulation of Images Using PHP*" (in Romanian), NET Report, vol.10, 11 (110), November 2001 [PDF]
 15. "*Client/Server Applications in C and Java - part II*" (in Romanian), NET Report, vol.10, 10 (109), November 2001 (collaboration with S.Andrei) [PDF]
 16. "*Client/Server Applications in C and Java - part I*" (in Romanian), NET Report, vol.10, 10 (109), October 2001 (collaboration with S.Andrei) [PDF]
 17. "*Using XML and RDF to Model Electronic Micro-payments*" (in Romanian), NET Report, vol.10, 10 (109), October 2001 (collaboration with O.Dospinescu) [PDF]
 18. "*Maths on Web*" (in Romanian), NET Report, vol.10, 08 (107), August 2001 [PDF]
 19. "*Types of Software Agents*" (in Romanian), NET Report, vol.10, 08 (107), August 2001 [PDF]
 20. "*Analysis and Design of Agent-Oriented Applications*" (in Romanian), NET Report, vol.10, 06 (105), June 2001 [PDF]
 21. "*Software Agents*" (in Romanian), NET Report, vol.10, 05 (104), May 2001 [PDF]
 22. "*Distributed Virtual Environments*" (in Romanian), NET Report, vol.10, 04 (103), April 2001 [PDF]
 23. "*PHP, Object-Oriented Programming and XML*" (in Romanian), NET Report, vol.10, 03 (102), March 2001 [PDF]
 24. "*Return of Netscape*" (in Romanian), PC Report, vol.9, 12 (99), December 2000 – cover story [PDF]
 25. "*Web Becomes More Visual (Multimedia Effects in Internet Explorer 5.5)*" (in Romanian), PC Report, vol.9, 12 (99), December 2000 – cover story [PDF]
 26. "*Cookies*" (in Romanian), PC Report, vol.9, 10 (97), October 2000 [PDF]
 27. "*More Than a Simple Text*" (in Romanian), PC Report, vol.9, 09 (96), September 2000 [PDF]

28. "*Web robots*" (in Romanian), PC Report, vol.9, 05 (92), May 2000 [[PDF](#)]
29. "*XHTML: The Beginning of the End?!*" (in Romanian), PC Report, vol.9, 04 (91), April 2000 [[PDF](#)]
30. "*XML through SAX*" (in Romanian), PC Report, vol.9, 01 (89), January 2000 [[PDF](#)]
31. "*XML DOM – The Access Way*" (in Romanian), PC Report, vol.8, 10 (85), October 1999 [[PDF](#)]
32. "*RDF: An XML Application*" (in Romanian), PC Report, vol.8, 10 (85), October 1999 [[PDF](#)]
33. "*Hypermedia*" (in Romanian), PC Report & BYTE, vol.8, 5 (80), May 1999 – cover story [[PDF](#)]
34. "*Schematics Graphics on Web*" (in Romanian), PC Report & BYTE, vol.8, 5 (80), May 1999 [[PDF](#)]
35. "*SMIL – A Synchronized Multimedia Presentation Language on Web*" (in Romanian), PC Report & BYTE, vol.8, 2 (77), February 1999 [[PDF](#)]

- **Printed Papers (in other magazines)**

1. "*L_EDA – An Extensible System*" (in Romanian), in "The Proceedings of the 5th International Scientific Students' Conference", ASEM, Chisinau, 1997 (collaboration with D.Todoroi)
2. "*Postprocessors of the Extensible Languages*" (in Romanian), in 'Economica', no.3 (12), Chisinau, 1996 (collaboration with D.Todoroi and A.Bejan)

- **Other Published Works**

1. Illustrations and main cover of "*Poetica si lirica lui Ion Barbu*" (in Romanian) by Mihaela Brut, "AI.I.Cuza" Publishing House, Iasi, 2003
2. A poem included in "*Ecou de gând*" (in Romanian), Prietenii Cartii Publishing House, Bucharest, 1997

- **Talks**

1. May 2004: FEstudIS – 3rd Edition of the Students' Festival, Iasi – "*World-Wide Web Space: Myths and Reality*" (in Romanian) [[PDF](#)]
2. March 2004: Public Presentation of the Doctoral Dissertation, Iasi – "*Multimedia Object Manipulation Techniques on Internet*" (in Romanian) [[PDF](#)]
3. November 2003: <Web /> Workshop on Web Technologies, Iasi – "*What We Must Know about E-Business?*" (in Romanian) [[PDF](#)]
4. June 2003: Graduation Ceremony, College of Information Technology, Iasi – "*Network Security*" (in Romanian) [[PDF](#)]
5. November 2002: Web-Group Meeting – "*Graphic Formats on Web*" (in Romanian) [[PDF](#)]
6. October 2002: Web-Group Meeting – "*Web-Group – a general presentation (2000-2002)*" [[PDF](#)]
7. October 2002: The Romanian Academy Anual Scientific Conference – "P.Poni" Institute of Macromolecular Chemistry, Iasi – "*XML-based Standard Methodologies to Store Chemical Information*" – in Romanian (collaboration with T.Rusu, and

O.Gogan)

8. May 2002: Graduation Ceremony, College of Information Technology, Iasi – "Website Design" (in Romanian) [[PDF](#)]
9. May 2002: <Web />.NET Workshop on Web Technologies, Iasi – "Hypermedia: on Web" tutorial [[PDF](#)]
10. May 2002: <Web />.NET Workshop on Web Technologies, Iasi – "XML-based Query Languages" (in Romanian) tutorial (collaboration with M.Brut)
11. October 2001: The Research Report Conference of the Faculty of Computer Science – "Research Studies on Semantic Web" presentation [[PDF](#)]
12. October 2001: The Research Report Conference of the Faculty of Computer Science – "Network Programming in C and Java Languages" (in Romanian) presentation (collaboration with S.Andrei)
13. August 2001: The 5th Romanian Internet Learning Workshop (RILW) 2001 International Conference and Summer School, Sumuleu-Ciuc – "Multimedia on Web" [[PDF](#)]
14. May 2001: <Web /> Workshop on Web Technologies, Iasi – "XML: The Conquerer" presentation (in Romanian) [[PDF](#)]
15. September 2000: The Research Report Conference of the Faculty of Computer Science – "Web Technologies. Present and Future of XML Language" presentation [[PDF](#)]
16. September 2000: The Romanian Academy Anual Scientific Conference – "P.Poni" Institute of Macromolecular Chemistry, Iasi – "The Use of Web Technologies for Research on Chemistry" – in Romanian (collaboration with T.Rusu, V.Tarhon-Onu, and C.Aberle) [[PDF](#)] and "Artificial Intelligence Methods in Polymer Investigation" – in Romanian (collaboration with T.Rusu, O.Gogan, and S.Ioan)
17. May 1998: The 11th International Symposium ROSYCS'98, Iasi – "Fuzzy decision support systems with application in mechanical engineering" (collaboration with M.Calin and I.Alexandru)

- **Software**

1. **GAEN**, 1996-2002, an advanced Internet tele-conferencing system, based on the NUTS 3.3.3 original program, with many additions and enhanced features, written in standard C (under UNIX, using BSD sockets)
2. **LEDA**, 1996-1997, an extensible visual object-oriented preprocessor, written in Delphi – B.Sc. diploma project

- **Academic Web Projects**

1. **ROSYCS 2004 – Romanian Symposium on Computer Science – Web Technologies**, a project to design and maintain the ROSYCS 2004 Web site
2. **ISPDC 2003 – 2nd International Symposium on Parallel and Distributed Computing**, 2003, a project to design and maintain the ISPDC 2003 Web site
3. **EuroLAN 2003 Summer School on Natural Language Processing**, 2003, a project to initially design the EuroLAN 2003

Web pages

4. **CIPC 2003 – Concurrent Information Processing and Computing Advanced Research Workshop**, 2002-2003, a project to design and maintain the CIPC 2003 Web site
5. **ISPDC 2002 – International Symposium on Parallel and Distributed Computing**, 2001-2002, a project to design and maintain the ISPDC 2002 Web site
6. **<Web />.NET Workshop on Web Technologies**, 2002, a project to design and maintain the <Web />.NET Workshop Web pages
7. "Al.I.Cuza" University of Iasi, 2001, a project to design the "Al.I.Cuza" University of Iasi Web site (the actual Web site is designed and maintained by **DCD**)
8. **SSCC 2001 – International Summer School on Cluster Computing**, 2001, a project to design and maintain the SSCC 2001 Web pages
9. **IWCC 2001 – NATO Advanced Research Workshop on Cluster Computing**, 2001, a project to design and maintain the IWCC 2001 Web pages and poster
10. **<Web /> Workshop on Web Technologies**, 2001, a project to design and maintain the <Web /> Workshop Web pages and poster
11. **EuroLAN 2001 Summer School on Natural Language Processing**, 2000-2001, a project to design and maintain the EuroLAN 2001 Web pages and poster
12. **ROSYCS 2000 – An Evolutionary Computing and Data Mining Workshop**, 2000, a project to design and maintain the ROSYCS 2000 Web pages
13. **EuroLAN'99 Summer School on Natural Language Processing**, 1999, a project to design and maintain the EuroLAN'99 Web pages and poster
14. **The 12th International Symposium on Fundamentals of Computation Theory – FCT'99**, 1998-1999, a project to design and maintain the FCT'99 Web site
15. **IDUN – Markup Languages**, since 1998, M.Sc. thesis, project to develop and maintain the Web page of **Faculty of Computer Science**, Iasi

- **Scientific Research Grants**

1. "*Advanced Techniques for Hypermedia Document Searching on Web*" – CNCSIS 283 Research Grant (2002) – grant head
2. "*Generative Methodologies for Design of Abstract Machines*" – CNCSIS 966 Research Grant (2001)
3. "*Networked AI Approaches for Investigations of Polymer Structure and Properties*" – Romanian Academy Research Grant (2000 and 2001)
4. "*Networked Virtual Environments*" – ANSTI Student Research Grant (2000 and 2001) – Sabin Corneliu Buraga (grant supervisor), Stefan Tanasa (grant head)
5. "*Optimization and Visualization of Molecular Structures on Web*" –

ANSTI Research Grant (2000)

Experience and points of interest

- Semantic Web (i.e. temporality issues, ontologies)
- Distributed computing (network programming, agent-based computing, mobility)
- Annotation languages and applications (XML family), metadata (RDF, DCMI), hypertext methodologies
- Graphical environments and hypermedia user-interfaces (methodologies, design techniques and applications)
- Web technologies and Web engineering (search techniques, site design, Web services, etc.)

Jobs/Activities

Professional Activity

- *Lecturer* (since September 2003) – Department of Theoretical Computer Science and Distributed Systems, **Faculty of Computer Science, "A.I.Cuza" University of Iasi**, Romania
- *Assistant Professor* (September 2000 - September 2003) – Department of Theoretical Computer Science, **Faculty of Computer Science, "A.I.Cuza" University of Iasi**, Romania
- *Research Assistant* (September 1999 - September 2000) – Department of Theoretical Computer Science, **Faculty of Computer Science, "A.I.Cuza" University of Iasi**, Romania
- *Research Assistant* (February 1998 - September 1999) – Chair of Informatics, Faculty of Horticulture, **University of Agronomy and Veterinary Medicine**, Iasi, Romania

Teaching Activity

- Recent courses
 - **Web Technologies** – mandatory (4th year students) – Faculty of Computer Science (since 1999)
 - **Semantic Web (Web Technologies II)** – elective (4th year students) – Faculty of Computer Science (since 2003)
 - **Computer Networks** – mandatory (3rd year students) – Faculty of Computer Science (since 2002)
 - **Human-Computer Interaction (User Interface Design)** – elective (3rd year students) – Faculty of Computer Science (since 2001)
- BSc. and MSc. thesis advisor (since 2000)
Recent topics: Web Technologies (Semantic Web, Web Services, XML Databases, XML-based Query Languages, E-business Applications, SVG-based Web Interfaces, etc.), Distributed Computing (Software Agents, Middleware Architectures, etc.)

Membership

Member in the scientific/professional organizations

- Initiator and editor of **Web** series of books published by **Polirom** Publishing House
- Member of the editorial board of **Lecture Notes in Human-Computer Interaction** series published by Matrix Rom Publishing House
- Member of the **Special Interest Group in Computer-Human Interaction (SIGCHI)** – Romanian branch (RoCHI)
- Co-founder member and head of **WebGroup** – an young research group on Web technologies and authoring techniques (since 2000)
- Founder member of **ANIRO – The National Association of Computer Science specialists from Romania** (since 1999)

Academic managerial experience

- Chancelor of the Faculty of Computer Science (since January 2004)
- Member of the Faculty of Computer Science Council (since October 2002)

Member of the scientific events committees

- Program Committee membership
 - Head of the steering committee of **ROSYCS 2004 – Romanian Symposium on Computer Science** (Iasi, 2004)
 - Member of the program committee of **ISPDC 2004 – International Symposium on Parallel and Distributed Computing** (Cork, 2004)
 - Member of the program committee of **RoCHI 2004 – Romanian Conference on Human-Computer Interaction** (Bucuresti, 2004)
 - Chair of the program committee and main organizer of **November<Web />** workshop on Web technologies (Iasi, 2003)
 - Member of the program committee of **ISPDC 2003 – International Symposium on Parallel and Distributed Computing** (Ljubljana, 2003)
 - Member of the program committee of **ABC'03 (Agent-Based Computing)** – special session in conjunction with the 7th World Multiconference on Systemics, Cybernetics and Informatics – SCI 2003 (Orlando, 2003)
 - Member of the program committee of **SABIS (Software Agents in Business Information Systems)** – special session in conjunction with International Conference on Business Information Systems – BIS 2003 (Colorado, 2003)
 - Chair of the program committee and main organizer of **<Web />.NET** workshop on Web technologies (Iasi, 2002)
 - Chair of the program committee and main organizer of **<Web />** workshop on Web technologies (Iasi, 2001)
- Reviewing membership
 - Referee Member for *Intelligent Agent Systems: Theory, Design and*

Implementation Special Track – The 17th International FLAIRS Conference (Miami Beach, Florida, 2004)

- Referee Member for *CONTI 2004 – International Conference on Technical Informatics* (Timisoara, 2004)
- Organizing Committee membership
 - Member of the organizing committee of the *Intelligent Agent Systems: Theory, Design and Implementation Special Track – The 17th International FLAIRS Conference* (Miami Beach, Florida, 2004)
 - Head of the local organizing committee of **CIPC 2003 – Concurrent Information Processing and Computing Advanced Research Workshop** (Sinaia, 2003)
 - Member of the organizing committee of **ISPDC 2002 – International Symposium on Parallel and Distributed Computing** (Iasi, 2002)
 - Member of the organizing committee of **IWCC 2001 – NATO Advanced Research International Workshop on Cluster Computing** (Mangalia, 2001)
 - Member of the organizing committee of **SSCC 2001 – International Summer School on Cluster Computing**. Also, participant of this summer school (Mangalia, 2001)
 - Member of the organizing committee of **EuroLAN 2001 – The 5th Summer Institute on Creation and Exploitation of Annotated Language Resources**. Also, participant of this summer school (Iasi, 2001)
 - Member of the organizing committee of **ROSYCS 2000 – An Evolutionary Computing and Data Mining Workshop** (Iasi, 2000)
 - Member of the organizing committee of **EuroLAN'99 – The 4th Summer School on Human Language Technology**. Also, participant of this summer school (Iasi, 1999)
 - Member of the organizing committee of **FCT'99 – The 12th International Symposium on Fundamentals of Computation Theory** (Iasi, 1999)

Personality

- open-minded
- ambitious, fast, and smart
- full of imagination
- artistic capabilities

Hobbies

- computers
- literature
- fine arts
- music

Languages

- English
 - reading – very good
 - writing – good
 - talking – good
 - French
 - reading – good
 - writing – good
 - talking – average
-

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Spacetime Constraints Revisited - Ngo, Marks (1993) (Correct) (58 citations)

encoding trajectories as behaviors, and a **genetic search algorithm** for choosing behavior parameters that
www.merl.com/people/marks/spacetime.ps.gz

One or more of the query terms is very common - only partial results have been returned. Try [Google \(RI\)](#).

Cost-Sensitive Classification: Empirical Evaluation of a Hybrid.. - Turney (1995) (Correct) (40 citations)

combines a greedy search heuristic with a **genetic search algorithm**. 4) It can handle conditional costs,
ic-www.arc.nasa.gov/ic/jair/www/volume2/turney95a.ps

Energy Minimization Using Multiple Supply Voltages - Chang, Pedram (1997) (Correct) (20 citations)

Power Profiler [8] primarily uses a **genetic search algorithm** to solve the multiple voltage
atrk.usc.edu/~juiming/Papers/multisupply-journal.ps

The Use of Dynamic Programming in Genetic Algorithms for.. - Yagiura, IBARAKI (1996) (Correct)
(3 citations)

search [4, 15]simulated annealing, tabu **search, genetic algorithm** [3, 7, 10] and so on. Multi-start local
kuamp.kuamp.kyoto-u.ac.jp/labs/or/members/yagiura./papers/gendp96_300dpi.ps.Z

Genetic and Local Search Algorithms as Robust and Simple.. - Yagiura, Ibaraki (1996) (Correct) (3 citations)

MLS) 4]15]simulated annealing, tabu **search, genetic algorithm** (abbreviated as GA) 3]8]10] and so
www.kuamp.kyoto-u.ac.jp/labs/or/members/yagiura./papers/mic95_300dpi.ps.gz

Structure Learning of Bayesian Networks by Genetic .. - Larrañaga, .. (1994) (Correct) (2 citations)

(n j 1 i)In Section IV we present a **genetic search algorithm** for BN structures that for the
www.sc.ehu.es/ccwbayes/postscript/pami96.ps.gz

An Efficient Solution to Circuit Partitioning Using Tabu.. - Shawki Areibi (1994) (Correct) (1 citation)

to Circuit Partitioning Using Tabu **Search and Genetic Algorithms** Shawki Areibi and Anthony Vannelli
and running time of a combined Tabu **Search and Genetic Algorithm** are superior to results obtained from
of two new search methods -Tabu **Search and Genetic Algorithms** on the partitioning of hypergraphs as
cheetah.vlsi.uwaterloo.ca/~sareibi/docs/6th_paper.ps

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Optical Music Recognition System within a Large-Scale Digitization Project (2000) [\(Make Corrections\)](#) (1 citation)

G. Sayeed Choudhury, Michael Droettboom, Tim DiLauro, Ichiro Fujinaga, Brian Harrington

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Abstract: An adaptive optical music recognition system is being adapted as part of an experiment in developing a comprehensive framework of tools to manage the workflow of large-scale digitization projects. This framework will not only support the path from physical object and/or digitized material into a digital library repository, it will also offer effective tools for incorporating metadata and perusing the content of the resulting multimedia objects. Introduction The project involves digitization of ... [\(Update\)](#)

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...fragments of music. dataset. Finally, we hope to get access to the data coming out of Fujinaga et al. s Optical Music Recognition System [7] , where a large collection of American sheet music is automatically converted into GUIDO descriptions. With this additional data, we...

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GUIDO/MIR - an Experimental Musical Information Retrieval.. - Hoos, Renz, Görg (2001) [\(Correct\)](#)

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0.2: "Name That Song!": A Probabilistic Approach to Querying on.. - Brochu, de Freitas (2003) [\(Correct\)](#)

0.2: Policy Research Working Paper 1644 - Pricing Industrial Pollution [\(Correct\)](#)

BibTeX entry: [\(Update\)](#)

Choudhury G.; DiLauro T.; Droettboom M.; Fujinaga I.; Harrington B.; MacMillan K. Optical Music Recognition System within a Large-Scale Digitization Project. Proceedings ISMIR 00. <http://citeseer.nj.nec.com/article/choudhury00optical.html> [More](#)

```
@misc{ choudhury-optical,
  author = "G. Choudhury and T. DiLauro and M. Droettboom and I. Fujinaga and B. Harrington and K. MacMillan",
  title = "Optical Music Recognition System within a Large-Scale Digitization Project",
  text = "Choudhury G.; DiLauro T.; Droettboom M.; Fujinaga I.; Harrington B.; MacMillan K. Optical Music Recognition System within a Large-Scale Digitization Project. Proceedings ISMIR 00.",
  url = "citeseer.nj.nec.com/article/choudhury00optical.html" }
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